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DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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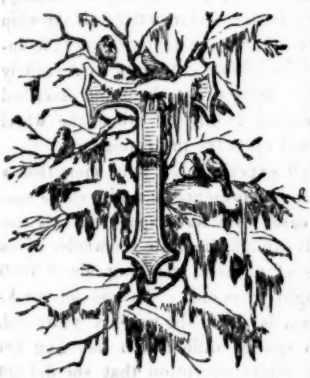
SIMON BROWN, EDITOR.

THOUGHTS SUGGESTED BY APRIL.

"A flowery crown will I compose—
I'll weave the Crocus, weave the Rose;
I'll weave Narcissus, newly wet,
The Hyacinth and Violet;
The Myrtle shall supply me green,
And Lilies laugh in light between;
That the rich tendrils of my beauty's hair
May burst into their crowning flowers, and light the painted air."



THE *first* day of April! We wonder how it came to be selected from the three hundred and sixty-five days in the year, as a day on which sensible people might be privileged to make fools of each other? This custom has never been very satisfactorily accounted for, but certain it is, that it dates back many centuries, and prevails throughout Europe as well as America. Did you ever spend fifteen minutes in a vain attempt to light a parsnip instead of a candle? Did you ever have a plate of dough-nuts passed you, and while you were tugging manfully to break one asunder, and to conceal the severity of your efforts under the mask of politeness, discover that it was stuffed with cotton? Did you ever receive a package which you thought must contain a gold watch at least, and find only an infinite series of brown paper wrappers? Then you know how such things are done in New England.

The following is a jest of a different kind and proves that its perpetrator, at least, was no fool. It is related of Rabelais, who, wishing to go from Marseilles to Paris and being without money to pay his fare, filled some phial with "brick dust or ashes, labeled them as containing poison for the royal family of France, and put them where he knew they would be discovered." The consequence was he was carried to Paris as a traitor, before the joke was found out! It certainly was an ingenious artifice for travelling at the public expense, but might in some cases prove a dangerous one.

Something similar to *April Fool's Day* is said to exist in the East Indies. It is curious to trace by indications of this sort, man's common brotherhood. At the first glance they may seem of no particular importance, but take this single example, and perhaps it illustrates the point all the better for being a trifling one—for such a custom certainly could arise out of no necessity of our nature, nor is it likely to be a coincidence, it must, therefore, have had a single origin, and have been carried over the world by the descendants of its originators—north, south, east and west.

When we look up to the heavens of a starry night, we see a constellation which everybody knows by the name of the *Great Bear*. It certainly has little resemblance to that animal, and we wonder by what flight of imagination the "wise men of the East," ever fixed upon such a name for it, but when we are told that American Indians and the earliest Arabs of Asia have called that constellation the "Great Bear," what can we infer, but that centuries and centuries ago, these divers nations were all one people? Equally striking is the well known fact that various nations have a record of the Deluge, answering very well to the Mosaic account, and that our Indians have a tradition of the same.

We should like to follow this train of thought still farther, but our limits scarcely permit, and we must leave it for each one to pursue it at his leisure.

APRIL, named as some suppose from *Aperire*, signifies to open, [illegible]

seems to be opening, and preparing to enrich us with its gifts."

Now we may bid winter farewell, in earnest, for although April is proverbially a coquettish month, and we are not to suppose because she smiles on us one hour she will not frown the next —still there is an onward progress. Slowly, but surely the way is being prepared for the fair things of summer, and the harvest of autumn. Not yet have the trees all put on their beautiful garments, but the maple down by the meadow is "clothed in scarlet," the willow droops with its burden of tender blossoms, (we called it *pussy* willow in our school-days,) and the fresh green grass is springing in all sunny and sheltered places. It is true that the "return of spring" on paper, is commonplace enough, and everything that can be said of its "beauties," &c., &c., has been said a thousand times, but the return of spring *in reality*, is always new. Though one may have seen threescore and ten of them, he never loses the feeling of fresh young life which it brings. And yet, perhaps, we all look at it from a different point of view. The invalid rejoices in the prospect of a season better adapted to his enfeebled frame; the farmer regards it with an eye to his plow and broad fields of waving grain—his flocks and herds; the little child thinks of the checkerberries—(he probably calls them ivy plums)—which look so bright and cheerful under their broad, thick leaves —of the bird's nests, which he knows very well where to look for,—and of all the grand rambles he is going to have in the woods now that the snow that has lain so long—it seems to him a year—is melting away. The old man looks out upon the reviving world and thinks how *his* winter will soon pass, and spring will come to him in another, and more congenial world!

The young lady, (is it not so?) puts by her skates with a sigh, and can only find consolation in the lovely shape of her new spring hat! We are glad, by the way, that any form of out-door exercise should have found so much favor in the eyes of the fair sex, and we hope that the prevailing mania of the past winter will extend itself still farther, and that walking, riding horseback, &c., &c., will come in fashion,—for if you can only make a thing *fashionable*, it is safe.

Of all the "rights" that have been withheld from our countrywomen, that of a hardy physical development is the most important, and the reformers who are bold enough to break down the ancient barriers in the way, are deserving of public thanks. Our own creed on the subject of "women's rights" is very brief. Let her be thoroughly educated, morally, intellectually, and physically, and she will fall into her own sphere, whatever that may be, as naturally as the earth revolves on its axis, or water runs down the hill.

Well, we shall find our compensation by-and-by, and if our spring is short, so much the more reason why we should make the most of it. Isn't this true philosophy?

HORSE TRAINING.

We had the pleasure, a few days ago, of witnessing Mr. ROCKWELL'S power over the horse, in a series of experiments made at Concord, Mass. In the first place, he drove a splendid stallion through the streets, without bridle, reins, or harness of any kind, except a surcingle passed around the body of the horse and attached to the shafts by a loop. At another time he drove a pair of stallions in the same manner. On both occasions the horses were driven through a crowd of people, sharp corners, among numerous other horses and vehicles, and were guided with more exactness than most of the lookers-on could have managed their teams with bits and reins. He controlled the animals, evidently, through their fears. There was a magic power in the long whip which he held in his hand. The eyes and ears of the horses were all attention; no motion of the whip, however slight, escaped their notice. If the whip leaned right or left, they instantly followed its inclination, or if its pliable extremity went entirely round, they gracefully swept about and described the circle, bearing gently off when the wheel pressed too hard upon the protecting iron.

Mr. Rockwell experimented upon more than a dozen horses in our presence, and with entire success in every case. We have space for only one which will well enough illustrate the whole. This was the case of a mare, weighing about 1050 pounds and eight years old. She was not "broken," as the term is, until she was six years old. There was no special difficulty in handling her then, with the single exception that she did not like to have her feet touched, either before or behind. The habit of resisting when she was shod grew upon her, so that the last time that work was needed, previous to the exhibition, it took four men two hours to accomplish it, and then the work was unsatisfactorily performed.

The mare was led into the ring, and Mr. Rockwell took a cord of the size of a common clothes line, and ten or twelve feet long, made a loop in one end, put it into her mouth, then threw the other end over her neck and brought it back through the loop, and held it in his hand. A headstall, without winkers, was upon her head. In this position he stood two or three minutes, speaking to the crowd, and then gave a sudden and powerful jerk upon the cord at right angle with her body, bringing the mare's head nearly round to her side. Then he caressed her a little, when two or three other, tiger-like springs followed in quick succession, evidently to the great

surprise of the animal. In less than fifteen minutes from the time he took her in hand, he took up her feet, hammered upon them and handled them just as he pleased! The result was equally satisfactory with a horse that was usually terror-stricken when an open umbrella came near him, and with others, vicious in various ways.

Mr. Rockwell's art lies in convincing the horse, at once, that he has lost his power; that man is an overmatch for him. Under his management, it is wonderful how quickly the animal seems to come to this conclusion. There is no secret in this. With the same energy and tact that Mr. R. employs, any other person can produce the same results. The exhibition was gratifying and highly instructive.

For the New England Farmer.

ASIATIC FOWLS.

MESSRS. EDITORS:—In obedience to your request, asking me to give your readers my opinion of the difference between the White or Grey Shanghai and the Brahma Pootra fowl, I will state my experience in regard to the different varieties. I have kept the Grey Shanghai and now keep the Brahma. I believe it is admitted by all poulterers, that these large Asiatic varieties were all produced, originally, from one species, and that they have descended from a large bird in the Islands of Sumatra and Java, known as the Great Malay Fowl. The difference between these varieties is due to the influence of crossing and domestication. Our American stock of these fowls came from Asia in the vicinity of Shanghai. The first were brought to this country about 40 years ago, since which time permanent crosses have been made, and thus the Brahma, and other varieties, have been produced. I have found the pure Grey Shanghai to be a very coarse, large-boned, awkward fowl, quite unfit for the market, and "with the exception of the Buff Shanghai," the most inactive of all the Asiatic varities. The pure Brahma fowls are more compact in form, shorter legs, much shorter tail feathers, and a superior market fowl. They are small-boned, in comparison with the size of the fowl, small feeders, and very hardy. If fed properly, they will thrive well where common fowls will suffer, or freeze. A very beneficial characteristic of the Brahmas is, that when old their flesh is both tender and juicy, which is quite the contrary with any other breed I have ever seen.

The Brahmas and the Shanghai are quite unlike in their general appearance to the eye of a fowl fancier. The thorough-bred Morgan horse may, to the inexperienced eye, closely resemble the common native farm horse, but by the horseman the difference will immediately be observed. With fowls, as with all other animals, those who breed them with care will observe a very slight imperfection that would pass unheeded by those who have not turned their attention to careful breeding.

I think every New England farmer who has given the Brahma fowls a fair trial, is convinced that they excel all others in every desirable quality, especially as winter layers. Any breed of fowls will lay in the summer season, but for my part, I prefer to have eggs in winter when they command a much higher price. I have forty Brahma pullets that have averaged twenty-three eggs per day during the past two months, which have been sold at thirty-five cents per dozen. I wish to keep the breed of fowls, and if any one has a better variety I am willing to give them a fair trial; but after keeping upwards of thirty different kinds, I have found none to compare with the Brahmas for every desirable purpose to the farmer.

J. S. IVES.

Salem, Feb. 24, 1864.

FOOT-ROT IN SHEEP.

John Johnston writes us that he believes he can manage this disease as well as M. Bauchiere, and that his method has, besides, the advantage of being no secret. He describes it as follows:—Take finely pulverized blue vitriol—the finer the better—make it into a salve with lard, butter, or honey. After cutting away every particle of the hoof that has become detached by suppuration,—if some blood is drawn no injury will result from it,—apply the salve freely, and I will warrant that in less than five days the sheep will be sound, provided the detached hoof has all been cut off. But it is safer to apply the salve at different times, say two or three, at intervals of four or six days, examining carefully at each application to see that none of the detached hoof is left on the foot. To cut this entirely away is indispensible. The best way I have found to pulverize the vitriol, is to hang up an iron pot by a rope or chain, put in half a pound of vitriol; then put in a cannon ball, and take hold of the pot with both hands, and give it such a motion as will cause the ball to roll on the vitriol, and it soon becomes pulverized. The vitriol will require to be loosened up from the bottom of the pot once or twice. No better cure for foot-rot need be desired than this, provided the application be thorough; but if the land is wet, or foot-rotten sheep have been pastured on it long, it will be safer to remove the sheep as fast as they are cured, because the foul land will again inoculate them.—*Cultivator.*

VALUE OF MANURE.—In a bushel of Indian corn, for instance, there are fifty-eight pounds of grain, which will make, according to circumstances and conditions of animals, from three to twelve pounds of flesh and fat. Now what becomes of the remainder of the fifty-eight pounds? A portion of it is consumed—burnt up as fire burns wood—in sustaining the necessary warmth of the animal. But the greater proportion is cast out in the droppings.

This rule holds good in fattening neat cattle, sheep, swine, and all other domestic animals. And herein, to a great extent, lies the real profit of feeding animals grain. The profit is in the *manure*. If that is lost or wasted, the profit is often very small, or there is no profit at all.—*Country Gentleman.*

TO PREVENT A HORSE FROM PULLING AT THE HALTER.—Tie a rope around the neck, put it through a hole in the edge of the manger, and tie it around the fore leg below the knee, and when the horse pulls, the rope will slip through the hole and pull up the fore leg, and he will soon give it up.—*Country Gentleman.*

THE WINTER CROOKNECK SQUASH.

Among all the varieties of the squash perhaps there is none so easily raised and preserved through the winter as the Crookneck Squash here figured. It is, also, an excellent variety boiled or for pies. We copy cut and description from BURR'S new work on the Field and Garden Vegetables of America.

This is one of the oldest and most familiar of the varieties. Plant hardy and vigorous; fruit somewhat irregular in form, the neck solid and nearly cylindrical, and the blossom end more or less swollen. In some specimens the neck is nearly straight; in others, sweeping, or circular; and sometimes the extremities nearly or quite approach each other. Size very variable, being affected greatly both by soil and season; the weight ranging from six pounds to forty pounds and upwards. A specimen was raised by Capt. Joseph Lovett, of Beverly, Mass., and exhibited before the Massachusetts Horticultural Society, the weight of which was nearly seventy pounds. Color sometimes green; but, when fully mature, often cream-yellow. The color, like that of the Canada Crookneck, frequently changes after being harvested. If green when plucked, it gradually becomes paler; or, if yellow when taken from the vines, it becomes, during the winter, of a reddish cream-color. Flesh salmon-yellow, not uniform in texture or solidity, sometimes close-grained, sweet, and fine-flavored, and sometimes very coarse, stringy, and nearly worthless for the table; seeds of medium size, grayish-white. the border darker, or brownish. About two hundred are contained in an ounce.

It is a very hardy and productive variety; ripens its crop with great certainty; suffers less from the depredations of the insects than most of the winter sorts; and, if protected from cold and dampness during the winter months, will keep the entire year.

PRODUCT OF A DAIRY.—J. L. R., Jefferson Co., N. Y., in the *Country Gentleman*, says that during the year 1863 he made from seven cows 1,643 pounds 7 ounces of butter. Average per cow 234 pounds 12 ounces. Net proceeds of dairy stands thus:

1,643 7-16ths pounds butter, average price 24½ cts.	$398 56
Milk sold	8 67
Calf raised worth	5 00
Calf fatted	4 00
Deacon and veal skins	5 25
Value of milk fed to 3 hogs, doubtful, but say	15 00
	$436 47
Average per cow	$62 35

No account being made for milk and cream used in the family.

The cows were soiled in the summer, and were kept on hay, corn fodder and straw, with three quarts of shorts and a peck of roots per day in

CARE OF ASPARAGUS BEDS.

Early last spring we prepared and published an article in the *N. E. Farmer* upon the culture of *asparagus*, and its importance to the family in an *economical* and *moral* point of view. We have reason to believe that the suggestions then made drew attention to the subject, and that many a liberal bed of roots has been planted in consequence. Something more, however, remains to be done, and the next important step is to attend to the

Spring Dressing of the Beds.

This should be done as early as the weather and the condition of the soil will permit. If the spring is late and the soil wet and heavy the work must be deferred until there is a change. When this takes place, even if it is as early as the latter part of March or the first of April, clear away all the old stems and litter of every kind. This is frequently done by burning it on the bed, and does no harm to the plants, while the ashes left from it are decidedly beneficial. Care must be taken not to wound the crowns of the roots with the tines of the fork. Forking the beds should not be neglected, as the admission of the sun and rain into the ground, induces the plants to throw up buds of superior size; in order to ensure this the ground should be kept clear of weeds at all seasons, as these greatly impoverish, and frequently smother the plants.

If one has but little land and desires to make the most of it, he may plant the ground between the rows of asparagus with potatoes, beans, or other crop, which will do no harm to the asparagus, if the soil is liberally manured and cleanly cultivated.

For the New England Farmer.

EXPERIMENTS WITH MANURES.

MR. EDITOR:—Having read much in the *Farmer* about the good qualities of various kinds of manures, I thought I would give you some of my experiments:

1. In the spring of 1861 I laid down a piece of land to grass and sowed with wheat. Nearly in the middle of the piece, on one rod square, I sowed two and a half bushels of ashes. The first and second seasons no difference was perceivable; the third season, while all around was herdsgrass, the square rod was all clover. The conclusion, therefore, must be that the ashes might as well have been somewhere else.

2. In the spring of 1862, having forty bushels of ashes, and ten or twelve bushels of hen manure, I mixed them together well, and added twelve bushels of loam. After preparing a piece of land for corn planting, by first harrowing thoroughly, (it being sward land plowed the fall before,) then plowing with a heavy plow, harrowing again, spreading on six cords of stable manure to the acre, plowing in lightly, levelling, and marking both ways, I put about a pint of the compost in each hill, with the exception of two rows

the ears from the two rows without any manure in the hill weighed seventy-nine pounds, while two rows on each side of the above weighed 154 pounds, or 77 pounds for each two rows. Now, the question is, what did I receive for my extra labor and the compost?

3. In the spring of 1863, having prepared my corn land as in 1862, I planted four rows on one side of the piece without any manure in the hill; the next four rows I put about a pint of Lodi poudrette in each hill, dropped the corn directly on the poudrette and covered to the usual depth. The next four rows the same as the first. The next four rows I put in each hill about half a pint of ashes, covered with earth, dropped the corn and covered as usual. The next four rows same as first and second. The next four rows had about a pint of hen manure and loam mixed together (equal parts) in each hill. The next four rows same as first and second. The next four rows had half a pint of plaster in each hill. All came up well, with the exception of the ashes and poudrette rows, which came very slow, and some hills were planted the second time, and were about eight days behind the other rows all the season. Now for the result: At harvest the ears on

The first four rows weighed					197½ lbs.
The next	"	"	"	poudrette	193 "
"	"	"	"		207 "
"	"	"	"	ashes	185 "
"	"	"	"		198½ "
"	"	"	"	hen manure	193 "
"	"	"	"		203 "
"	"	"	"	plaster	195½ "

It seems by the above that I not only lost my labor, and manure that was put in the hill, but quite a number of pounds of corn.

I tried the same as above with my potatoes, and could perceive no difference.

If you can give any reasons why the result should be as it is, I should be glad to hear them.

North Providence, R. I., Jan. 1, 1864. G. E.

REMARKS.—We thank our correspondent for communicating these experiments. The results are certainly not what we should have expected.

For the New England Farmer.

DISEASE IN APPLES.

I noticed last fall that some kinds of apples appeared to have a disease upon them. The first that attracted my notice was the Porter apple. I had brought some into the house, and in a few days found many, probably half of them, turned black. I thought them rotten, and wondered at the sudden change. On examination I found the discoloration to be confined to the skin; the flesh appeared sound. When I gathered my winter fruit I found the Rhode Island Greening affected much in the same way—not so black all over, but spotted. The Porters soon lost their flavor, whether by the disease or because they had gone out of season, I cannot say. My impression is, the Rhode Island Greenings are not so good-flavored as formerly, but I may be mistaken. Besides these two I had a tree of natural fruit of greenish color and good size, affected with spots like the other greenings. These were pretty acid, but very good for pies and cooking purposes, and usually saved for that purpose, and kept pretty well into winter. I did not notice the disease on any other kinds. Never having noticed anything of the kind before, I am induced to mention the fact, and to inquire if such appearance has occurred on apples in other places, or is common, or whether it be the commencement of a new trouble with our apples? RUFUS McINTIRE.

Parsonsfield, Me., Feb. 8, 1864.

REMARKS.—We noticed nothing of the kind in our last fall crop. If others did, we hope they will communicate.

For the New England Farmer.

THEORY AND EXPERIMENT.

MR. EDITOR:—Is every generation doomed for all time to come to test anew by costly experiments the theories their fathers have tested? The whims, the fanaticism of crazy, scientific, religious, political and agricultural reformers have their outbreak in some part of the world periodically. Nothing seems too absurd to be believed, and for a time will have its votaries. Every now and then the Patent Office at Washington is called on to explode the assumption of perpetual motion. Theologians are challenged to disprove the agency of spirits in tipping tables, or modern spiritualism—or some other ism—and statesmen must battle agrarianism. Our children must, or are made to, swallow more drugs and nostrums than ever before, in spite of the medical colleges and medical science; and for proof of this, take up the first newspaper you can get hold of and compare the thousand and one universal panaceas advertised therein, to the number advertised twenty years ago. Are we growing wise, or are these quacks multiplying only in the proportional ratio to increase of population?

These reflections are called up by seeing three dwarfish, insignificant, dirty, scrubby, merino lambs pass my door in a pung bound for the Aroostook. I questioned the *unfortunate* man, and learned that he had been so foolish as to pay one hundred and fifty dollars for them, and was going to cross them with his flock of English Leicester and South Downs, away up on the Aroostook River. A pity, thought I, that royal blood should ever be so basely prostrated—and hence degenerated. Anybody that ever had any experience in that experiment could tell this unfortunate man's fortune. The man's head was apparently clear in other matters, but here he was insane, or, to use a milder word, unsound.

The best English breeds of sheep are now found in that section, including the Provinces—best for mutton, and that is what pays the farmer the best—for the wool brings within a few cents per pound the price of merino wool; beside, the English breeds are more hardy, and the lambs are sure to live with the same care, and hence more profitable. This merino fever arose in consequence of the success of a Vermont speculator obtaining big prices for his pampered merinos in Germany. Common sense would look at whole flocks of sheep, as they actually are, or as farmers usually tend and care for them, and also at the latitude they are to be kept in, and to the comparative profits of wool with mutton—and wool alone. This unfortunate man will hereafter be shunned by the butchers and all lovers of good mutton; and he will, instead of realizing from three to four dollars per head for his surplus lambs at three and four months old, for the shambles, be

obliged to keep them a year before realizing any profit from them. Maine can compete with Vermont in her valuable English sheep, and, take the mutton and wool together, will leave her in the rear.

The underdraining theory was all the rage with farmers a few years since, and agricultural lecturers, not content with the fact patent to any discriminating farmer, that some lands well paid the expense of underdraining, such as wet and boggy lands where nothing but wild and comparatively worthless grasses grew, went to the extreme, and advocated that *all* lands should be drained, or that any land, however dry, would retain the moisture longer if drained,—hence be more prolific, and more than repay the expense of draining. Even the clear-headed Mr. Horace Greeley, advocated in his agricultural addresses through the country, that if *any* land was worth cultivating it would pay back enough more to cover the expense of draining. He run draining theory so much, so long, and so thoroughly underground, as to set everybody to digging rifle pits even to the top of the highest sand hills, in this section of the country, as my neighbor over the way to his sorrow, or his sorrowful pocket will testify. There are miles of this folly perpetrated in sight of my door, and you cannot tell by the crops which part of the field can claim this distinguished honor—the honor of being Greeleyized. Because *some* lands are benefited by draining, it is no proof that *all* land may be so improved.

Some farmers reason like the celebrated Doctor Esculapius. The doctor visited one of his patients, a blacksmith, and found him convalescent and lunching on codfish. The doctor immediately noted in his book, "*Codfish good for blacksmith.*" He was subsequently called to prescribe for a shoemaker, and of course ordered him to eat nothing but codfish. The sequel was that the poor shoemaker died under the codfish regimen. The doctor enters in his notebook, "*Codfish good for blacksmith, but death to a shoemaker.*" Now I recommend the unfortunate man above to enter in his sheep book, in large capitals, "*Merino wool good for the broadcloth maker, but death to mutton chops.*" And so, Mr. Editor, the farmers at large read the agricultural papers, and the moment they find something recommended by somebody that never, perhaps, had a hill of potatoes, or planted a hill of corn in their lives, immediately proceed to put the hint into practice, because they find it in their papers, and find too late to save their pockets, that theory and practice do not always agree.

My neighbor went to great expense to set out an orchard of grafted apple trees, and was anxious that they should have the benefit of all the scientific help he could find in the papers brought to bear on his promising fruit trees. He reads in the papers that, to promote their growth and to kill all noxious parasites, it is recommended to wash them in alkali. So he procures ashes from elm and maple wood, and makes the strongest decoction of alkali he could make, and gives the trunks, the limbs and the leaves a generous baptism, when, *presto! mirabile dictu!* the next day found his precious fruit trees—the leaves burnt, the trunks drying up—his orchard destroyed, that cost so much money and careful planting. Killed. Horticultural quackrey had done its perfect work.

My other neighbor is ripe for all the patent rights' pedlers that swarm along the road, promising to annihilate muscular labor and usher in the Millennium. He comes to me all converted to the belief that the "Atmospheric Churn" is to supersede all other churns, and not content to buy one and prove it, or rather to prove one and then buy it, but must needs buy the right for all the adjoining towns. His fortune is made in the perspective; "for, see," said he, "the water is all on foam; the churn worked admirably when churning water, (the pedler was careful to use water instead of cream to test its merits,) it is logical to suppose that it will make the cream foam with equal beauty." "But," said I, "perhaps it won't." I failed to reconvert him until the duped man had parted with his money and he had manufactured a dozen or more Atmospheric Churns that were useful only to churn water.

My other neighbor had been very prosperous in bee culture, but the indefatigable, omnipresent patent right pedler found him out, too, and converted him to believe that he was behind the age—that honey might be abstracted *ad infinitum* with his patent bee hive. The patent right theory could divide the compartments and subdivide these by boxes, so as to remove the old comb at will, and hence give the bees the advantage of always living in a new house, providing they could build a new one as often as they were robbed of the old one! This was a charming theory, provided the bees were satisfied that they were able to build up as fast as you could tear down. The sequel was, that at the end of the second year the bees were *non est*, only empty boxes remained. A subdivision with a vengeance. The bees froze to death for want of a parlor large enough to hold the family!

I promised you a year ago I would try the top-dressing theory, and advise you of the result. I think more might be learned from publishing in your paper *experimental failures*, than doubtful experimental successes. I have no mammoth pumpkins, big squashes, or huge pigs for you to chronicle, but I have simply thrown away the use (certainly for one year) of the dressing obtained from feeding out thirty tons of English hay. You advised me about one year ago to compost this dressing with muck or loam, and spread it on my grass ground broadcast, as early as possible after the snow left. I did compost this dressing with sandy loam, used to bank up my house the previous winter. This dressing was mostly from the sheep yard, and, therefore, very fine and easily composted. It proved like the Doctor Esculapius theory, good for moist land, or any land in a wet season, but death to the dressing in a dry season. My dressing of a hundred sheep and half-dozen head of neat cattle, I consider more than half wasted. It was spread on high, sandy loam grass land. The winds in May dried up the moisture of the dressing quickly, little rain falling before the grass was to cut. No perceptible difference could be seen in that part of the field where the land was topdressed, other than where it was not so dressed. What may be seen another season remains to be developed. But the experiment was a failure last year; and I think that more than one-half of the virtue of the dressing must have evaporated, and so will be a total loss. And this experiment teaches me that it is not good

husbandry to dress high or dry land.

C. S. WELD.

Penobscot County, Maine, 1864.

REMARKS.—Notwithstanding the apparent dissatisfaction of our correspondent with the world, we believe it is gaining in intelligence and virtue every day. It is not all right yet, certainly, so far as human duty is concerned,—but the progress is Heaven-directed and encouraging. The criticism upon the "Vermont Speculator" we do not think it best to suppress, but to let the Vermont gentleman reply to it himself, if he chooses. If we have a man in the community who is distinguished for fair dealing, for integrity and manliness, it is the person to whom this allusion is probably made.

With regard to the advice we gave "about one year ago in relation to composting," we have referred to it, and only say that the opinions given were the common opinions of our best farmers. We have never advised any one to topdress "high, sandy loam grass land," with SAND compost, but with *muck* compost; and our opinions, over and over again expressed, have been to topdress naturally moist lands, and, as a general rule, to plow and cultivate to restore gravelly and sandy loams. But we are not arbiters of the weather. An unusually dry season might greatly reduce, if not destroy, the crop on "a *high, sandy loam*," especially if aided by the hot sheep droppings used. No advice can be given to a farmer which it is safe to follow without taking attending circumstances into account. If a single early, drenching rain fell upon the manure spoken of, we cannot see how it could fail of benefiting the grass, *provided it had any roots to work upon*. Manure is often applied where there are few roots left, and the farmer is astonished that it does not increase his crop!

HIGH PRICES OF WOOL.—The high prices to which wool has attained, have greatly stimulated the production, especially in the more remote Western States. For the past two years large numbers of sheep have been sent from Ohio, Michigan, &c., to Iowa, Minnesota and Nebraska, where the climate and ranges are rarely excelled for sheep husbandry. The clip of 1864 will no doubt be largely in excess of that of any previous year, and it will all be needed at remunerative prices. The increased production of wool in California is remarkable. In 1857, the quantity shipped from that State was fifty-five bales of very inferior quality—worth from 6 to 10 cts. The clip of 1863—only six years later—was over 50,000 bales. According to this ratio of increase, the clip of 1869 will reach 200,000 bales; and in 1875, 1,250,000. The quality and condition of California wool coming forward, is much better now than formerly, and meets with increasing favor among manufacturers. Staple kinds in good order command 40 and 50 cts.

EXTRACTS AND REPLIES.

Sap Troughs for Sugar Makers.

In answer to "Mr. Backwood's" inquiry in the *Farmer* for Feb. 6th, I would say that he can get a sawed wooden spout for about 12 or 14 cents a rod, to carry sap down the hill to the place for boiling, of Moses Sheldon, of Calais, Washington County, Vt. Mr. S. was presented with a diploma and premium at the Vermont State Fair, last fall, at Rutland, for the above invention. A. C. POWERS.

Sutherland Falls, Jan., 1864.

Cut Feed for Horses.

A correspondent in the *Farmer* for Feb. 6, 1864, wishes to know whether cut feed for horses is any advantage. I presume I can answer the question to his satisfaction.

We have an old horse, some twenty years of age, which we used to feed as your correspondent described his. But since we commenced feeding him with cut hay, mixed with about three or four quarts of meal per day, it not only makes the horse look better, but enables him to perform as much labor as two horses fed on the old system. M. H. H.

Fall River, 1864.

Coal Ashes as a Fertilizer.

I was informed that coal ashes are a fertilizer, which would pay to cart a few miles; but I learned from a neighbor, who was induced to try them, to the contrary. Buy gas lime, said an agent of a gas company. I demurred. He said, I will make you a present of a barrel. I tried it and found it wanting; but he lost nothing, for many of my neighbors were induced to try it on his saying that I tried it.

Substitutes for Coffee.

Substitutes in lieu of coffee meet the eye at every grocery store. Beware of them. Many are the deleterious component parts. Illness was the result of using that which was recommended to me as pure ground coffee. Hundreds are the cases of ill health brought on by its use, which are ascribed to other causes.

Increase the Manure.

Every farmer on the sea coast need not have a leisure day in the winter. Haul up the treasures of the deep, seaweed. I took a look at a farm with the view of purchasing; the owner's mind ran on thorough cultivation, rather than driving a fine horse; his barn, storehouse, and cellars were full, and his fields had that color which predominates with the slaves.

Setting an Orchard.

If the young man who is about to set out an orchard has noticed those trees which produce the best, he will find that it is better to set one in a situation which is protected from high winds.

Newcastle, N. H., Jan., 1864. S. P. M.

Sore Mouth in Sheep.

A sure remedy for this complaint is to bathe the parts affected with a strong decoction of sage, mixed with an equal quantity of vinegar and add one half ounce of blue vitrol to one quart of the mixture; sweeten it with honey, and bathe every third day until the disease disappears. I have used the above remedy for a number of years, and never knew it to fail. May it save others as many dollars as it has me.

Hillsboro', N. H., Jan., 1864. G. G. B.

Salt for Horses.

I would like to inquire of you, or some of your correspondents, whether salt is good for horses or not? I have heard some good farmers say it was not, and they reason something in this way—that the horse has no gall, and the food is not digested by gastric juice, but by a sort of gas which salt destroys; they say that it is not natural for the horse to love salt and he only learns to do so by having it placed temptingly before him. My horses love salt and express as much uneasiness to do without it three or four weeks, as do

cattle or sheep. It seems to me as though it would be as hard for them to do without it, as it would be for a man who is in the habit of using tobacco to do without that.

A subscriber wishes me to inquire if you cannot give the price of gold in the *Farmer?*

Cabot, Vt., Feb., 1864. C. M. FISHER.

REMARKS.—We have no doubt that salt is good for horses, and never have heard it doubted before.

Poultry Book---Cutting Fodder---Horse Power.

Do you know of a book on fowls that is authentic, where it can be obtained and at what price?

Please give your opinion whether it will pay to cut cornstalks and other fodder for cattle, and whether it ought to be steamed?

Which is the best machine for horse power?

Vergennes, Vt., 1864. W. S. ALLEN.

REMARKS.—The *American Poulterer's Companion*, by C. N. BEMENT, is the best work among us, at present. The book is written in a moderate tone, having grown out of his own experiences, in a great measure. It is a reliable book—well printed and illustrated with 120 engravings on wood and stone. It may be found at the bookstore of A. Williams & Co., 100 Washington Street, Boston. Price $1.50.

Cutting Fodder. Whether it "will pay" to cut fodder for stock, depends upon circumstances. Whether it would be economical to hire a man at common wages, purposely to cut fodder for stock, we cannot say, because there are no well attested experiments upon the subject. But that it would be *profitable* for every farmer having a stock of a dozen cattle or more to feed, to purchase a cutter worth $16 or $18, and use it, *we have no doubt whatever.* This opinion has been formed after many years' experience in feeding out cut and uncut fodder. We intend to speak more fully upon this matter hereafter.

Steaming Fodder. This cannot be done profitably with small stock of cattle, we think. No cheap and effectual means of doing it have yet been devised, to our knowledge. With a stock of forty head, or more, we have no doubt it can be done economically.

Horse Power. We do not know which are the best.

To Clear Oats from Seed Wheat.

I noticed in your paper an inquiry how to cleanse oats from wheat. Washing the wheat in brine as strong as it can be made will take the oats all out.

So. Malden, Vt., 1864. D. G. FARRINGTON.

Saving Manure---Wolf Teeth---Maple Sugar.

Most farmers keep their cows in the barnyard during the night, in summer time, their droppings to be turned and overturned by the hens until they are as "dry as a chip." In this condition they are almost worthless.

I have astonished myself for several years in finding such a large and nice pile of manure saved from this source. After the cows are let out to pasture, we put their droppings in a pile and cover with dirt. Sometimes we have kept the cows in the stables nights and used dirt enough to absorb the urine, which is a good way.

What is the cause of wolf teeth in colts? Do they affect the eyes? What is the reason our fathers did not know of such a thing years ago?

Some one inquires in your paper, "Who first manufactured maple sugar?" I think it was first made in the town of Northfield, Franklin Co., in this State. By whom, and when, I have forgotten. QUILL.

Shelburne, 1864.

REMARKS.—We quote below what we think will answer one or two of the questions of our correspondent about Wolf Teeth in Horses. The word "wolf" has a meaning beyond that of being applied to an animal that is, it means, a tubercle, an ulcer; so that a "wolf tooth," probably means an ulcerated tooth.

Mr. John Pettibone, of Manchester, Vt., in the *Albany Cultivator*, says that "Wolf teeth are quite common, and many good horses are made blind by them. I had two horses or colts, which had them last season. The cure is simple and easy. Take a piece of iron with a square end, one-fourth of an inch in size. Let one hold the horse and open the lip so as to enable the one with the iron to place it against the tooth, and with a small mallet knock the tooth out. There is no root to the wolf teeth. The best way is to take the horse to a blacksmith shop, and the smith with his punch will knock them out in two minutes. When you see the horse's eye begins to run and look glassy, look for the wolf teeth. It is a small sharp tooth just forward of the grinders of the upper jaw."

In the same volume, we find Mr. P.'s opinions corroborated by Mr. A. M. Williams, who says, "I have had some experience in this matter, and here offer you the result of my observations. I had a valuable young horse who exhibited evidence of disease in one eye. My first impression was he had got some hay seed or something of the kind in his eye. The main symptom was running at the eye, and while affected in this way, he was unusually restless. I consulted with my neighbors, and was told that he had a wolf tooth, and unless removed it would make him blind; I then consulted several authors on the subject of horses, only one of whom mentioned this disease, and he mentioned it merely to ridicule the idea that a wolf tooth would affect the sight of the horse. I accordingly neglected to do anything about it until it was too late. I had it taken out at last, but the horse lost his eye. On another horse taken in the same manner, I had the tooth removed in season, when the running at the eye ceased, and the sight became perfect as before. These are facts that ought to be known. A large proportion of the blindness among our horses is, in my opinion, owing to the presence of wolf teeth, which could have been removed with very little trouble, and the eye saved."

The new *Encyclopedia* says that the manufacture of maple sugar is stated to have originated in New England about the year 1752, but by whom or in what town, is not stated.

EARLY TURNIPS.

Among the great variety of wholesome vegetables which can be grown favorably in this climate, many esteem the common flat turnip as among the best. When crisp, tender and juicy, it certainly is entitled to considerable merit. In this condition it will cook readily, and dressed with a little salt, pepper and sweet butter, is an acceptable and nutritious food. To secure the qualities mentioned, it should be sown early,—that is, as soon as the soil is in a favorable condition,—on *new ground* if possible, and as fast as the plants appear sprinkle them with ashes, plaster, snuff, or anything else that will tend to keep the little black turnip fly from destroying them. If they escape this ordeal, keep all weeds away from them, and if the season is favorable they will make a surprising growth, and perhaps become fit for the table in the early part of July.

The ground should be hoed occasionally, and the plants thinned so as to stand nine or ten inches apart. In this position they will not grow so large as though farther apart, but will be more tender, crisp and juicy. We have raised a flat, purple-top variety which is excellent, which has recently been introduced in England.

CULTURE OF ONIONS.

In the last *Farmer*, we called the attention of the reader to the importance of producing a plentiful supply of *ripe, early potatoes*, and spoke of their value to the family. We said nothing of them then, however, in a *commercial* point of view. Since preparing that article, a friend, living within eighteen miles of Boston, informs us that he recently raised some two or three hundred bushels of potatoes, and sold the first *forty* barrels for $4.00 per barrel, the price decreasing on the balance as the season advanced.

Our present object is to call attention to the culture of *onions*, and we do this, now because it is one of those crops which scarcely afford any prospect of success, unless it is got into the ground as early as the condition of the soil will permit. Mr. BURR, in his excellent work on the "Field and Garden Vegetables of Ameriea," says the onion requires a light, loamy, mellow soil; and, unlike most kinds of garden vegetables, succeeds well when cultivated on the same land for successive years." The soil certainly should be light and mellow, but if the seed is sown in a soil that is *very light*, as it often is left when thoroughly raked, it will not come so well, nor will the onion assume so just and fair proportions as though the ground were *rolled* before sowing the seed.

The seed should be in drills, the rows from 14 to 18 inches apart, and the seed covered about half an inch deep,—but this depth must depend upon the condition of the soil. BURR says again, "When the plants are three or four inches high thin them to two inches asunder, and, in the process of culture, be careful not to stir the soil too deeply, or to collect it about the growing bulbs. The onions will ripen in August, or early in September, and their maturity will be indicated by the perfect decay of the leaves, or tops. The bulbs may be drawn from the drill by the hand, or by the use of a common garden-rake. After being exposed for a few days to the sun for drying, they will be ready for storing or for the market."

When housed, they should be kept in an even temperature, and as cold as they can be without danger of frost. A room that can be thoroughly ventilated is essential: one that may be readily closed during damp weather, and opened when there is a drying breeze.

The soil should be prepared by digging in rich manure. If green manure is well mingled with the soil the fall previous to sowing the seed, it will be in excellent condition to feed the growing plants.

There are not many varieties of the onion. The one introduced here is well known among large cultivators as the *Danvers Onion*. It takes its name from the town where it is largely cultivated, is very productive, "white flesh, sugary, comparatively mild, and well flavored."

The *Large Red Onion* is a popular variety. It is very productive, and one of the best to bear transportation. We have sometimes seen it measuring 4 or 5 inches in diameter.

The *Potato Onion* is sometimes preferred by those who wish for a few only, for family use. It does not produce seed, as other onions, but it increases by the root. One single onion of the size of a marble, or a walnut, slightly covered, will produce six or seven in a clump, partly under ground. The bulbs should be planted early in the spring, 10 or 12 inches apart, and kept free from weeds, but the bulb itself not moved after it is set. It is hardy, grows rapidly, and is easy of cultivation.

The onion, however, that is probably better known in New England than any other, and which has all the good flesh qualities that are desirable, is the *Yellow Onion*, or the *Silver-skin* of New England, a cut of which is here given. Its size is above medium, skin yellowish brown, or copper-color. Flesh white, fine-grained and excellent. It keeps well, and for the vegetable garden, as well as for field culture, is a standard variety.

Our principal suggestions are, to *sow as early as possible*, and mingle *wood ashes leached, or unleached, with and upon the soil*. The principal hindrance to onion-growing is the ravages made by the onion-worm. Nothing has yet been discovered which is a perfect preventive. One experienced grower states that the common *yellow snuff* mingled with the seed at the time of sowing will do it, and others that wood ashes scattered upon the young plants will stop the operations of the maggot. We believe, however, that the Danvers growers have not yet found any certain remedy for the inroads of this little destructive creature.

Cows in milk require more food in proportion to their size and weight, than either oxen or young cattle. Cows eat less, however, thrive better, and give more milk, when housed all the time, than when exposed to the cold.

ROASTED LAMB AND GREEN PEAS.

Roasted lamb without green peas is as incongruous as roasted turkey or pork, without cranberry sauce. Still, there may be something in the custom, or in the name, more than there is in the reality. Either would be good, separately, to a hungry man,—the lamb as an occasional dish, and the peas as an every day one during their proper season.

Few things tend more to health, harmony and economy, than a plentiful supply of fresh, well-grown vegetables, fruits and salads, through all the spring and summer months, and among these *green peas* take a foremost place. Boiled with a piece of sweet, corn-fed pork, or without the pork, and seasoned with butter, they serve for an excellent meal, even without the roasted lamb, if aided by good bread and butter, or an apple or Indian pudding. With such vegetables, the butcher's bill may be kept within moderate limits, the table always supplied with nutritious and healthful food, and the family gathered around the social board, be cheerful and happy. The *moral* influences of green peas, are by no means to be overlooked. In connection with other seasonable and wholesome diet, they have undoubtedly given a good bias to thousands, which has gone along through life with them to the end. Let us have, then, the *green peas*, lamb or no lamb, and have them early, and enough of them to fill the plate of every hungry boy and girl, whether they come romping from school, field or forest!

What variety shall we plant first? The *Early Dan O'Rourke*, of course.

Just as soon as the frost has left the grouud, and the tempering suns of April have evaporated the superabundant moisture, prepare a place in some sheltered spot, if you can, and plant. Make the ground mellow, moderately rich, open trenches and strew in a little wood ashes or old composted manure, sow the peas upon it, and cover them *three* inches deep. If it is still more, no matter. Now take birch, or any other brush and stick them. The sticks should be branchy, and branching along the rows, rather than into the paths, and their length should be according to the variety of pea planted,—as some kinds like to run much farther than others. If preferred, the sticking may be omitted till the peas come up.

No weeds should be allowed to grow among them. As they progress, they require frequent hoeing, and the earth should be drawn about the stems a little each time. If the season is a dry one, straw, hay, or any litter spread about the plants will keep the ground moist, and greatly increase the amount of crop, and extend the time of bearing one or two weeks.

They should be planted pretty thickly. Bridgman says one quart will plant from one hundred and fifty to two hundred feet of row, allowing the largest kinds to average one inch apart, and the smallest two peas to the inch. Deep covering is essential, as they will then root low in the ground and better withstand drought, should it occur.

The next best pea is the *Champion of England*, and a splendid pea it is, following on after the Dan O'Rourke. In cultivating, treat it the same as the first described. It is a large, light green, shrivelled pea, mild in flavor, rich, sugary and tender. It is a good grower and continues to bear well under good care and in a moderately rich soil.

ON BUTTER MAKING.—The attention of the reader—and especially of every man or woman engaged in making butter—is called to an article on another page, entitled "*Butter Moking not a Mystery.*" We know, from a long experience, that the opinions advanced by the writer are correct. If his suggestions were followed by all, there would be little difficulty in prodncing good butter at any season of the year. The proportion now of miserable butter, is fearfully large, and the loss to our farmers is consequently large,—for they cannot command a high price for poor butter. We have no doubt that the reading of the article referred to will result in the production of many tons of excellent butter.

For the New England Farmer.

SHALL WE PRODUCE OUR OWN SWEETENING?

Does not this question awaken serious consideration at this time in the mind of every reflecting farmer, who feels most seriously in his pocket (if no where else) that *sweetening* is very expensive, and that behooves him to decide the question with greater care than heretofore, whether the substitutes for its production, which a few years since were discussed, and to a very limited extent experimented with, may not anon be resorted to with good prospect of success?

At a convention recently held at Columbus, Ohio, of *sorgho* cultivators it was the prevailing opinion of the members that it would soon rank among the important interests of the country; that its permanency will not depend upon the question of peace or war with the South. In short, that the most active competition of Southern cane will not seriously affect the culture of sorgho as the North. It is a well established fact that in many section of the Western States for a number of years past the farmers have raised sufficient sorgho to supply themselves with syrup, while others have had a surplus to sell! Some have even converted it into sugar, as they thought, at paying cost.

In the manufacture of the sorgho into syrup and sugar, each producer of the cane is not expected to own the machinery requisite for the purpose, but some one makes it a specialty to work up the cane in his vicinity on shares or by purchase. So far as I am acquainted it is gener-

ally done on shares, the manufacturer retaining one-half for his trouble and expense. As to the reliance to be placed upon the production of this plant. I found most of those I inquired of respecting it were of the opinion that it was upon a par with Indian corn, subject to no greater vicissitudes, and requiring no better soil or greater care. The early frosts of the past season throughout the West cut off the sorgho as well as the corn crop. This is an evil not to be looked for as liable to occur in the future, any more than it has in the past. As to the *quality* of the syrup. I think when properly manufactured it equals most of the syrups made from the sugar cane. At first using it some might not like it, but use soon overcomes this, and would it not be well for you, Mr. Editor, to gather and publish some of the necessary facts bearing upon this subject that the past year's experience have demonstrated? By doing this very many of your readers would be truly gratified, I have no doubt. It would enable them to decide whether it would answer for them to attempt its culture. I am persuaded that if it *paid* when prices of sugar and molasses were selling for one-third the present prices, and the tariff very much less, the manufacture of sorgho must now be a very profitable operation.

A price current by my side quotes brown sugar, at wholesale in New York, last week, at 11¼ a 15½ cents per lb., and loaf at 17 cents per lb.—molasses at 45 a 70 cents per gallon, according to quality. These prices are enormous, and of course fifty per cent. higher than the specie basis; still, making all due allowance for the inflation of the currency and the present high price of labor, the margin for a profit is still large. We are not, however, confined to sorgho exclusively for an article to obtain our sweetening from, neither am I fully satisfied that it should hold the most important place in this respect with us in the Northern States, where our soil must be well manured in order to produce whatever crop we desire to cultivate. The leaves alone of the sorgho are of any value for stock, if the plant is matured sufficiently for sugar and syrup. Not so the beet. From this root, which will grow well on most any soil, we can not only extract the saccharine properties and distil alcohol, but the refuse, or pomace, is of about as much value for feeding stock as before the still has operated upon it. In France, we all know, the beet has been fostered by the government until it has become so well established that it is regarded as one of the permanent products of the country from which it obtains a large portion of its sweetening, and derives a large revenue. A few years since a company was organized in England for the manufacture of the beet into sugar, syrup and alcohol. They not only cultivate the beet extensively themselves, but encourage the cultivation by others, paying them remunerative prices, and doing a prosperous business. I think it has been found, by analysis, that beets grown in our soil and *climate* are better than those grown in Europe, abounding in a greater per cent. of saccharine material. It seems to me that the advantages are all in our favor for producing our own sweetening.

K. O.

Rochester, Jan. 18, 1864.

In fruits, a pleasant sour is generally thought better than sweet; in disposition and temper never.

For the New England Farmer.

DISEASES OF FARM STOCK.

Let any one talk with most farmers about the diseases that occur among their cattle, horses and hogs, and he will be surprised at the vague and indefinite notions they express. They have certain general terms for groups of symptoms, which they observe. But they have no definite ideas with respect to the organs or tissues affected, or of the cause or nature of the affection, or the course it will run if left to itself, or the change which must be wrought by remedies in the system, or in the affected organ, in order to arrest the disease. They give remedies—and often harsh and violent remedies—without any definite ideas with respect to the effects which those remedies will produce.

A cow is sick. She stands with her back curled up, her head drooping, her nose dry, her eyes dull, and taking no notice of anything around her, and refuses to eat. What is the matter? Her owner feels of her horns, and says they are cold, and he thinks she has the horn ail. Well, what is the horn ail? What action is taking place in the horns? Why, I don't know. Probably some inflammation and pain. But you say the horns are cold. If inflammation was going on within them, would they not be hot rather than cold? Yes, I should think so; but I don't know. She acts as neighbor A's did, and she had the horn ail. So he bores a hole in the horn, cuts off the end of her tail, rubs some spirits of turpentine upon the roots of her horns, and gives her a drench of thoroughwort tea, with a quantity of rum, molasses and melted lard added to it. Now the gimlet wounds the bony tissue within the horn and lets in the air, and inflammation ensues, just as it would if a gimlet were thrust into the bone of the leg. The cutting off the tail causes soreness and pain in that organ, so essential to the comfort of the animal. The turpentine causes smarting and inflammation of the skin about the top of the head, and the drench sickens the poor beast, and she dies. Well, I am sorry, but it can't be helped; cattle are apt to die of horn ail. So she is dragged away to some by-place and buried. No examination is made to find out what is really the matter; even the horns are not cut open to find out whether inflammation was present there. The lungs, the heart, the different stomachs, the intestines, the kidneys, are not searched to find the seat of the disease. But, says the owner, if I should cut up the animal I could not tell what was diseased and what not so. Then get some physician or farrier or some butcher to assist you who is familiar with the appearance of the tissues in health. But most farmers, especially if they have been in the habit of having their animals slaughtered upon their own premises, can tell the difference between diseased and healthy organs, even if they cannot tell the precise nature of the disease. If a lung is inflamed, enlarged or hardened, they can distinguish it from one in a natural state. Every man who has the care of animals ought to be able to do as much as this; if he is conscious that he cannot, he should go to the nearest slaughter house and make himself familiar with the size, consistence and general appearance of the healthy organs.

It is by the dissection of the bodies of those who have died of disease, and by comparing these

with the appearance of those in health, that physicians have acquired all the really valuable knowledge of disease that they possess. This knowledge they have acquired under many difficulties. There has always existed a prejudice against the use of dead bodies for anatomical purposes. There is something revolting about it to the feelings of most people. So strong has this feeling been, that many eminent medical men have directed in their wills that their own bodies should be dissected, in order that their own example might tend to remove it from the public mind. It was with great difficulty that a sufficient number of subjects could be obtained for the use of medical students, until enlightened legislation removed the obstacles. But none of these difficulties exist with respect to the dissection of the bodies of animals. There are no prejudices in the public mind to be overcome. Certainly it is for the interest of every farmer, as well as of the public in general, that the bodies of animals that die of disease, should be examined, that the seat and nature of the disease may be ascertained. A farmer who has carefully watched the symptoms exhibited by a sick animal, and then, after its death, traced carefully the effects produced by disease on one or several organs, will be better prepared, when he observes similar symptoms in another case, to decide what the disease is. A knowledge of the seat and nature of disease is the only safe basis for the application of remedies. The haphazard, promiscuous use of remedies now so much practiced, is much worse than nothing. There can be no doubt that thousands of sick animals would have recovered if they had been let alone, and the sufferings, which they were enduring from disease, had not been aggravated by violent and inappropriate remedies. Now that Pleuro-Pneumonia is among us it becomes doubly important that every animal which dies or is killed, about whose disease there is any doubt, should be examined, for it is only by an early knowledge of the existence of this disease in a neighborhood, that our herds can be guarded against its destructive contagion. When a farmer knows or suspects the presence of this disease in his herd, if he is an honest man, he will isolate his whole stock at once, that the cattle of his neighbors may not be exposed; and if he regards his own interest, he will abstain from bringing other cattle on to his own premises. Let me illustrate what I have said by an instance; I have a neighbor, who lost a cow last September; he did not know what was the matter with her, but called it the horn ail. He buried her without any examination. Since that he has bought a large number of cattle at Brighton, and is wintering them to turn into his pasture in the spring. He has recently lost one ox, and now has at least four others sick; and there is not the shadow of a doubt that the disease is the true Pluero-Pneumonia, and from comparing the symptoms, which the cow exhibited last September, with those presented by the oxen at the present time, he has no doubt that the cow had the same disease. Now if he had examined the cow, and ascertained the nature of her disease, would he have bought some twenty oxen within a few weeks, and brought them into his herd? He certainly would have had too much regard for his own interest to run any such risk. There may be some unbelievers in the contagious nature of this disease stupid enough to do it, as there may be some reckless and wicked enough to purchase herds that have been exposed to the contagion, if they can get them cheap, and sell them in the public market. But I have too much confidence in the shrewdness and honesty of Yankee farmers to believe that many of them, if they had been forewarned by the proofs that would have been presented on the examination of this cow, would have brought other cattle on to their premises during the present winter. They would have preferred to sell their hay and purchase manure for the coming season.

R.

For the New England Farmer.

BUTTER-MAKING NOT A MYSTERY.

MR. EDITOR:—"How do you make such nice, sweet butter in winter?" is a question often asked by my customers, as I carry them their usual allowance of fresh butter for the week. Sometimes I answer, "I will tell you when you go to farming."

For me, it seems a very simple thing to make butter that is good and uniform through the whole year. But, were it simple to all, butter would hardly command the present high prices.

Some one asked, through your columns not long since, how to make good butter in winter. I would answer, "Make it just as it should be made in summer." Yet as you may not think that a very definite explanation of the process, I will tell you how good butter can be made in summer.

A butter dealer said to me, the other day, that were he engaging a dairy for the season, he only wished to see a sample of the August or dog-day butter. If that were satisfactory, he would take his chance with the other two ends of the season.

There are about five or six weeks in spring and fall when, I suppose, every farmer's wife can make a fair article of butter. It will almost "make itself," with good June or September feed, in a clear, dry, June or September atmosphere, with the mercury indicating an average of 60°.

What else causes butter made in June, September and a part of October, to bring better prices then that made at any other time of the year? But for the dairy to yield a generous profit through the whole year, a fair article must proceed therefrom every week. Everybody cannot be supplied through dog-days with June butter; nor can every family have their tubs for winter filled in September.

Now if you can bring the dairy under the same conditions in August or December, that prevail in June and September, why should you not realize the same results? Doubtless you would. But this it seems impossible, at present, fully to do. Yet I think the secret of success in butter-making is to bring about these conditions as nearly as may be.

In the first place, you must, of course, have good cows. Some cows will make a large amount of high colored butter, but it is too soft to handle well in any weather, especially when very warm; others yield an article too white to be attractive, though I consider color of much less importance than solidity. As far as my observation has extended, very yellow butter is not as good as that which is lighter colored. It is apt to be oily, caused, I think, first, by being naturally soft, and

second, by the consequent over-working it usually receives; the buttermilk being less readily expelled from soft butter.

Good cows obtained, the next requisite is good feed. And what can be better than June honeysuckle "up to the eyes," or clover aftermath in September? Probably nothing. I prefer, however, as a matter of health, to give a feeding of dry hay every day through the season. I can thus keep them more uniformly, and not subject them to sudden changes from green to dry food.

But what for feed the remainder of the year? Why, get the next best thing—which is the same, cut and cured, for feeding in the stall. During the third week of last June I cut four or five acres of clover and red-top, the clover just coming into flower, the red-top showing its flower stalk. Sixty days after, I cut the same field again. This winter, the cows, to which both lots are fed, seem to know no difference between the first and second crop. It is all rowen to them. I am fully of the opinion that very little of the hay in New England is cut as early as it should be. For dairy cows, I would prefer it all cut before blossoming, rather than after.

A large butter dealer and a good judge, tells me that he has known his mother to make just as good and just as yellow butter in winter, while her cow was being fed solely on rowen, as she could ever make in summer, from the same animal. I think he came very near the truth.

But to supply yourself with a stock of *June atmosphere*, in which to set your milk and do your churning, through dog-days, is not so easy a thing as to cut your hay early and afterward a crop of rowen. The thermometer does not usually stand at 66° from July to Sept. 1st, nor do you generally have a clear, dry air at that season.

Hence I do not expect you can make your best butter, or that which will keep longest, during this period, unless you can secure these two requisite conditions, viz., moderate temperature and dryness of the atmosphere. But the nearer you can contrive to approach these conditions the better your success.

I keep my milk, during the extreme hot weather, in my house cellar, a large, light, airy room, clear of all boards and wooden utensils not used for milk; the whole room thoroughly whitewashed. The windows—a north, south and west one—are open or shut, darkened or not, just as may be needed to keep the air of the room as pure, as dry, and at the same time as cool as it can be under the circumstances. I consider a damp atmosphere worse than a very warm one for milk. It makes the cream thin and watery, requiring much more care and a longer time in churning.

I need not say that I do, or that you should, set your milk in the pans two or three inches in depth, and skim it up at twenty-four or thirty-six hours old, putting the cream in a tin pail or stone jar, stirring it occasionally; for that almost all dairymen and women do. But when I say you should never commence a churning unless your cream is known to be at a temperature not any below 60° nor higher than three or four above that point, I cannot, at the same time, say everybody does that, for I do not know of one dairyman or woman, except through the books, who is exact in this respect.

warm it will come too quickly, be soft and white, and not pleasant stuff to manage, and if too cold it will swell and foam, and not come at all—some one asserting that "it did almost come, but went back to cream again." One dairyman, who usually has good luck, told me this winter, that he churned all one day and then gave his cream over to the pigs, only wishing he had done it sooner.

Up to last April I occasionally, and not very unfrequently, had just such "luck." Since that time I have used a common fifty cent thermometer—selecting one that would slide easily in the case, or that I could dip the bulb into the cream without the case.

When I have gathered a sufficient quantity of cream I try it by the thermometer, and if the temperature be from 60° to 64°, I churn it immediately. If not within those limits, I bring it there, by some means, before it goes into the churn. I keep my cream in a large tin pail that can be hung in the well the night before churning—not *in* the water, but just far enough down to have the cream at 60°, when churning is commenced. Placing it *in* the water makes it too cold: and cold cream is addicted to the same freaks in summer as in winter.

In Spring and Fall 62° does well; in winter, 64°; but in summer the temperature will rise rapidly enough if you commence at 60°. I never want butter to reach a higher temperature than 66° at the time it separates from the buttermilk.

Following this method, I have not had the shadow of a failure for ten months. My summer and winter butter have come about equally well, varying from fifteen to forty-five minutes, according to the ripeness of the cream. I think it does no harm to run a bucket of cold water through the churn after the milk is drawn off. If the butter is a little too soft, as it almost always will be in summer, it does much good by hardening it before salting. My butter is taken from the churn to a butter worker, like the small, simple one figured in Flint's work on Dairy Farming—a book, by the way, that every man or woman who expects ever to make a hundred pounds of butter should read through twice, as a preliminary step. In this worker the butter is salted, then returned to the well for twelve hours, after which it is thoroughly worked. And here I find a great advantage in the worker over the hands. If butter a little too cold is worked in summer, by hand, it will grow much too warm before the buttermilk is expelled; while the worker will do it quickly, thoroughly, and without causing the oily taste so commonly found in hard-worked butter.

So much for summer butter. And now, to make good, sweet, yellow butter in winter, you have only to secure the same conditions that are best for making summer butter, namely, good cows, rich feed, a dry air in which to raise the cream, and a temperature as near 60° as it is possible to preserve. The latter condition is much more easily obtained in winter than in summer; for by artificial heat the air can be kept at the proper temperature in the milk-room without being made damp, while the same result cannot as readily be obtained in summer with ice, on account of the dampness accompanying it. Indeed, I believe more butter, and that of a good quality, can be made from a given number of quarts of milk, in winter, than can be through the warmest

Finally, in butter-making, as in ship-building, or surveying, strike the word "luck" from your vocabulary. Learn your trade. Learn the laws that govern your work and obey them. Be not outwitted by heat or cold, by wet or dry, but press them all into your service, and be master, not slave, of the fluid forces of nature.

Sheldonville, Feb. 12, 1864. A. W. C.

For the New England Farmer.

MORE ACCURATE FARMING NEEDED.

At the close of the year it is generally customary with business men to scrutinize their business affairs, strike the balance between profit and loss, and if the former is in excess exult over the result, and with renewed confidence enter upon the new year's duties. But if the latter, a careful investigation of its causes ensues, irresponsible customers are dropt, new ones sought, all needless expenses stopt, more devoted attention to their duties required of their employees, and greater diligence in attending to all the details of their affairs, that the like may not occur again so far as their agency is concerned.

This course of conduct is ever regarded as highly commendable in all men in mercantile pursuits. If this is so in reference to them, how much more so is it necessary for the farmer! Our New England farmers generally do a comparatively small business; the profits of their products are also small, even at the best prices, and often barely pay the expenses of producing. This is so often the case that many farmers in our poorest districts positively affirm that no man can afford to hire labor. If their health fails them, and no sons to succeed them and go the rounds of drudging toil as they and those who have preceded them have done, why the farm must be sold,—and the paternal associations forever severed, that had been fostered with the fond hope that they might be perpetuated through a long line of sires and sons. This fact of selling because disqualified from vigorous labor is abundantly evidenced by the numerous advertisements we see in the newspapers. This is the class of farmers who contend that farming with us is unprofitable. It does not pay, they verily believe. We yield to the allegation so far as they are concerned, but must contend that it is not necessarily so with good, skilful management, for various reasons. How many of these men keep as exact an account of their business matters as the merchant does? What do they know of the cost of their several crops, the profit of their pigs, poultry, or other farm stock? I will venture they know comparatively nothing. It is with them all guess work, with not the least approach to accuracy. If men are employed, they cannot, with any degree of certainty, tell whether they were the gainers or losers by the outlay.

Contrast this picture of real and too common facts, with an individual case I am familiar with, and see which commends itself to the candid, discerning mind. The case I refer to was that of a young man who commenced farming at twenty-one years of age. When he purchased his farm he had each lot surveyed, numbered and marked; a regular entry of each lot made in his books; each lot was debited with every day's work, or fraction of a day, done upon it, as well as all other expense thereon. Nothing was omitted in this respect. Credits from crops on pasturage were faithfully kept, and at the end of the year the balance was struck and the result with a certainty, known. If any lot did not come up to a paying point, or a handsome profit, that lot was taken in hand until that *was* the result. I may as well here state that each lot was appraised according to its relative value with the other positions of the farm, and interest charged according to appraisal. This man employed three and four men on a small place of eighty-five acres, and could tell almost to a certainty, on Sunday morning, what would be the progress of the week's operations. He could tell you at the end of a year what per cent. profit his laborers netted him. No guess work with him. His balance sheet was struck, and the new year was entered upon with the confident assurance that he *knew* just what he was about. His year's plans were all matured and mapped out at the beginning of the year, and the force requisite to carry them out secured beyond contingency, so far as depends on mortal care.

Who cannot see in this example, in contrast with the previous described one, an enviable difference, and a most decisive reason why the systematic, carefully-calculating, and account-keeping man, should succeed, and the others fail? I know of a young man, the past season, who moved into a neighborhood of farmers, where, for years, they had plodded on in the same rut their fathers were, without a thought of change or improvement upon the past. He leased a small farm that had, what was regarded then, as a full supply of manure for all ordinary purposes; not so thought our man. He purchased nearly as much more in value as was upon the farm, to the astonishment of the lookers-on, who predicted a coming out at the little end of the horn.

The result of it is, our young man has made two dollars to their one, they all concede; not that this is owing to the increased quantity of manure entirely, but the mind that seizes hold of an advantage of this kind is ever ready to act in all other details of farm management to great advantage. If from any cause one crop fails, another and later one appears to take its place, and it may be, pay better than the first, had it succeeded.

The fact is, we should not find the question so often discussed in our agricultural papers as to the profitableness or unprofitableness of farming, if our farmers would bring the same amount of business brains to bear upon their business, that the merchant or manufacturer does upon his. It is the *habits* of the *men* that ensure success or failure. In my opinion, here lies the whole secret. How can a man succeed if he has a farm of large extent and does not know how to work men to profit? His own labor is insufficient for the task, if he attempts it. Things soon get dilapidated and go to decay. He cannot but *make shifts* that eventually result in debt, despondency and final ruin of his prospects.

I have prolonged this subject beyond my intention. It is an expansive theme, that requires an abler pen than mine to exhaust, or perfectly elucidate. I trust we may all profit by the hints here thrown out, and commence this new year's farm operations upon a more systematic account keeping plan and forethought than any that have preceded it, with the full assurance that our profit will be found therein. K. O.

Rochester, Jan. 1, 1864.

EXTRACTS AND REPLIES.

Culture of White Beans.

I would like to inquire of you or your correspondents what success may be expected in raising white beans as an entire crop? Are they any more likely to blast when planted alone, than when planted with corn? How many bushels may be expected from an acre of land, suitable for a crop of corn? Four years ago I raised twelve bushels on less than one acre, by planting them between my corn at an equal distance from each hill. The corn was planted at the usual distance apart, but only two or three stalks came up in a hill, owing to guano put in the hill. O.

Westboro', Feb., 1864.

REMARKS.—This crop has been considerably neglected by our farmers, and we are glad to find attention directed to it. We look upon it as a profitable crop when judiciously conducted. There is no good reason why they should not be cultivated as an entire crop, and several why they should *not* be crowded in with corn. We have just been looking over the transactions of the Little Falls Farmers' Club, and find the following, by Mr. A. WILCOX, a member of the club:

"Alternate hills of corn and beans were dropt about twenty inches apart, in rows; distance between the rows three and one-half feet. The ordinary cultivator was used before hilling and hoeing. Two acres produced thirty-five bushels, while there was no perceptable difference in the yield of the corn from the rest of the field. The next year I raised 115 bushels from a little less than seven acres, managed in the same way. The seed planted was of the small, white variety. I have raised more than thirty bushels of the same kind, on a single acre, when sown in drills, about two feet between the rows, *without the corn*. The quantity of seed required to the acre, when beans is to be the only crop, should be from twenty-eight to thirty-two quarts; when planted with corn, sixteen to eighteen quarts per acre. Any soil that is well adapted to corn will produce beans, if the tillage is thorough. When convenient, plant on land where corn or potatoes grew the year before."

Beans are cultivated as an entire crop by some of our friends, and with good success. Sixteen to twenty-five bushels per acre is considered a good yield, from good land and good care.

Salting Hay and Stock.

In the *Farmer* of February 13, I find the matter of Salting Hay discussed by your able correspondent, "More Anon," who, no doubt tells the experience of nearly all who salt their hay. Most of the farmers in this part of Vermont salt their hay more or less, but do so more to preserve the hay than to make the stock eat it better. As stock will not eat as much salt in winter as in summer, I think that as much salt as some of the writers in the *Farmer* put upon their hay, would be more than the stock would naturally eat. I have lately used the rock or mineral salt, as our dealers call it, which comes in large pieces, one or more of which I put in the racks or feeding boxes of my cattle and sheep, where they can lick from them at will. I think in that way they get what salt they need much better than mixed with their fodder. My sheep seem to enjoy this method of salting better than any other. I give my sheep a foddering of hemlock boughs once or twice a week, which, with a daily meal of sliced turnips, serves to keep them in health and gives them a better appetite for their other food. J. L.

St. Johnsbury.

Sheep Pulling and Eating Wool.

I have a flock of about 30 native breed sheep, and they pull and eat each other's wool, eating one-third part of the wool off of some sheep. One has died of cold for want of its natural covering. I have given them salt, wood ashes, earth, hemlock boughs, sulphur and tar, and they seem to do no good, and I would inquire through the medium of your excellent paper, if you, or others, know a remedy for this complaint? I give my sheep an average quality of hay and two quarts of corn daily. By giving a remedy in your paper as soon as possible, you will much oblige an inquiring FARMER.

Bristol, N. H., Feb., 1864.

REMARKS.—The habit which sheep form of pulling wool from each other, and eating it, is probably induced by some want that is not supplied, or by some disease which has not yet been discovered. We have had considerable personal experience in sheep husbandry, but have never seen a flock where this mania prevailed. We are glad to publish this notice of our correspondent, and hope some of the flock-masters who read this will throw light upon the matter.

A. Mr. Lewis Clark, in the *Wisconsin Farmer*, says the best plan to keep the wool on sheep is to keep them *fat*, and that if sheep are "run down" from any cause, and are fed high at once, their wool will start. Even a change of pasturage, from a poor to a Timothy and clover pasture, will start the wool from a lean sheep. But the feeding of corn, beans, wheat rye, barley, oats, vegetables, or anything that sheep will eat that makes *fat*, avoiding sudden changes, will not only cause the wool to stick, but will increase it more than enough to pay the additional cost. Our correspondent's sheep seem to be fed and cared for well.

Manure for Early Vegetables.

Will you, or some of your numerous correspondents inform me what kind of manure is best to promote the early growth of corn and garden vegetables? Early growth being of the greatest importance. The soil is a rich, fine, sandy loam, bordering somewhat on the quicksand. Location, Burlington, Vt.

The land has been in pasturage for several years, until last spring, when it was plowed and corn planted on the sod, with no manure, except a small qantity of plaster in each hill. I had a good crop.

Burlington, Vt., 1864. INQUIRER.

REMARKS.—Manure from the horse stables is undoubtedly the best for such a special purposes. If the soil is somewhat sandy, some means should be provided to keep it sufficiently moist, as the horse manure is too heating for a decidedly sandy soil. A little guano, superphosphate of lime, or some other specific manure would stimulate an early growth. Wood ashes is excellent to carry out the plants.

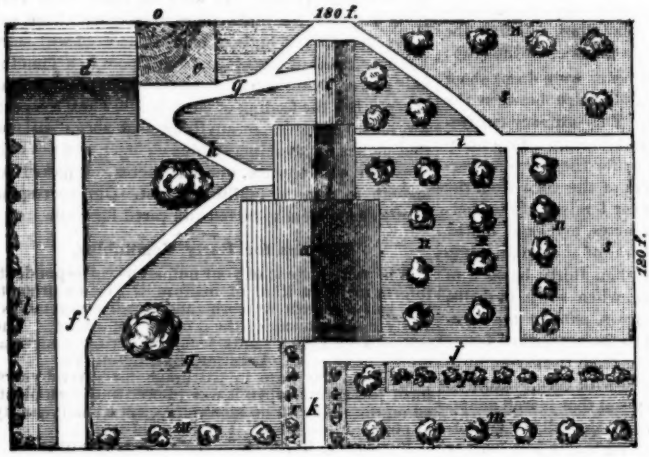
SPRUNG KNEES IN THE HORSE.—The trouble does not always result from an injury of the leg, or strain of the tendons; it is more often found in horses that have bad corns in the feet, or troubled with navicular disease, than any other. The animal raising his heels to prevent pressure upon the tender parts bends the knee, which bending becomes finally, from the altered position of the limb, a permanent deformity. Horses with sprung knees are unsafe for saddle purposes, owing to their consequent liability to stumble. Respecting the treatment, it may be said that six out of every ten sprung-kneed horses will be found to have corns. If these be of recent growth, there is a fair prospect of straightening the limbs by removing the corns as directed under the head of that disease; by the removing of these the heels are brought to the ground, and the limb becomes straight. Under any other circumstances all treatment proves useless.—*Jennings on the Horse.*

OUR HOUSES AND GROUNDS ABOUT THEM.

The first grand requisite in this mortal existence is *a good conscience.* Without this, all is "vanity and vexation" of spirit,—for a viper is constantly gnawing at the very fountain of life. The next thing is *good health,*—though some say that uninterrupted health is not desirable. If we had ever enjoyed the latter for five consecutive years, we could judge better. When we do, our opinion shall not be withheld.

Having then, the conscience and the health,—the next important thing to our convenience and happiness is the *house in which we live,* and *the things which surround it.* Parental example and instruction must establish the first, but the latter, the *house and its surroundings,* will so thoroughly map themselves upon the minds of children that no influences of after life will be able to efface them. This map will reproduce pleasant scenes and memories, that will make the heart cheerful and elastic, or they will be scenes and utterances from which will spring a morbid spirit full of murmurings and discontent.

How important, then, it is, that every thing that is to fill and mould the young mind shall be of an agreeable and instructive character. Let us see how much we are doing, in this direction, to secure this result. The cut which we present below is the



REFERENCES.

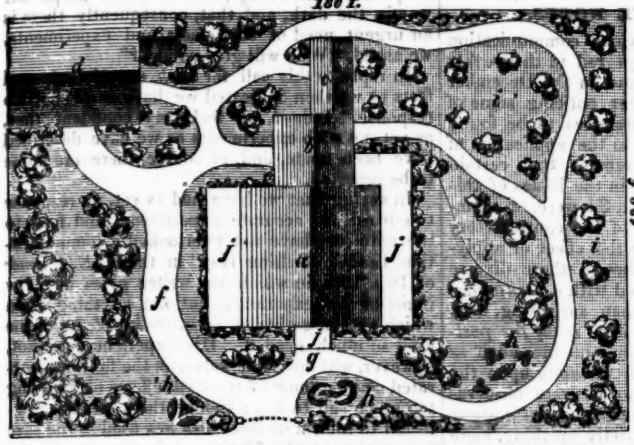
a. House.
b. Kitchen.
c. Woodshed.
d. Barn.
e. Pig-sty.
f. Main Carriage Road.
g. Path from Shed to Barn.
h. Path from the Kitchen to Barn.
i. Path from Kitchen to Garden.
j. Path from the front door to Garden.
k. Path to Front Door.
l. Border of Currant Bushes.
m. Dilapidated elms in front.
n. Rows of Apple Trees.
o. Manure Heap.
p. Gooseberry Border.
q. Grass.
r. Flower Border.

Village Homestead as it is---Unimproved.

This engraving represents one of the hundreds of homesteads in New England of about the same size and shape, or only slightly differing, and must be familiar to all. The land is half an acre in size, on which is a house forty feet square, with L and wood-shed. There is also a barn, 40 × 30; at one corner of the barn, *o*, is a pile of manure exposed to the washing and beating of wind and rain; this pile is surrounded by the hog-pen, whose squealing inhabitants are plainly perceivable by all.

The buildings are all more or less painted; probably white in front, and bright red on the back and sides; in some cases there are blinds, but in more none. Every path is straight, and if it is inconvenient to go around the corners, another path is worn across the grass. *F*, is the road up to the barn; this road is shut from the main street, by either a pair of bars, or a three-barred gate generally halting on one hinge. *K*, is the path to the front door, which also is closed by a gate, commonly composed of pickets, one or more of which are askew, or broken out. *H*, *g*, *i*, and *j*, are paths through the garden and grass, to and from the house and barn; in every case it is necessary to go around a long and awkward corner, or cross grass or plowed land. *M*, is a row of half-starved elms from the woods, or, perhaps, of overgrown and neglected apple trees. *S*, represents the tillage by dotted lines. *Q*, grass, by straight lines. At *n*, *n*, there are fruit trees, all of which indicate the absence of horticultural skill. On the west side is a long picket fence, out of which many slats have been lost, thus accommodating the neighbor's or the proprietor's pigs and hens in their friendly visits. Against the fence on the west, north, and east, there may be a row of moss-covered currant, raspberry or gooseberry bushes. On either side of the front walk, *k*, are two borders, *r*, *r*, for flowers, which in some cases will have a few stunted roses and pinks, and a few roots of phlox or other perennials. The border, *p*, is filled with some berry fruit, and the tilled surface more or less covered with fruits, vegetables, *and most of all, weeds!*

Now let us look at the other side, the



Village Homestead as it should be---Improved.

How the scene is changed! How pleasantly it strikes us, and at once fills us with agreeable emotions! We love to linger near it, and contemplate the forms of beauty which everywhere meet the eye, and listen to the cheerful sounds that mingle in the perfumed air. Everything conspires to fill the mind with grateful feelings, and to impress upon it such a charming landscape view and harmony of sounds, as will come back in pleasant memories in all after life, whatever our employment may be, or wherever in the wide world our lot may be cast.

As will be seen by this sketch, the curved road, *f*, does away with the necessity of going to the barn to get into the carriage, or to roll a barrel of flour across the grass to get it into the house. So, too, the paths through the garden all bend in such a manner as to offer the readiest means for exit and entrance, without leaving sharp corners to be cut across. The flower-beds, *h*, offer a pleasing object to the eye, and the porch and verandahs added to the house, *j*, afford a cool promenade morning, evening and mid-day, and screen the windows from the hot sun, and when festooned with vines furnish more beauty than any other possible ornament. Flower beds, *h*, are cut out of the grass, and should be kept well filled with flowers.

Finally, neatness, order and beauty, outside, indicate neatness within. A beautiful writer says, "The care of flowers and cultivation of plants, do not merely contribute to the maintenance of health, they soften the passions and elevate the taste above the affairs of every day life. In the home around which we see a well-kept garden, internal order almost always prevails; and where there is a flower-stand outside, there is almost always a book-shelf within."

To all this may be added the positive certainty that whatever the business of the occupants may be, *more money will be made* under the influences of the neatness, order and beauty of the Improved Homestead, than there can be with the same business talent unimproved.

SOIL FOR FLOWERS.—Soil for flowers may be looked up during the winter season. Very few understand that an occasional change of soil is very beneficial to flowers in beds, though all know how important it is to flowers in pots. There is nothing better than surface soil from an old pasture, taken off about two inches deep, and thrown into a heap with about one-sixth part of old hot-bed dung, to partially decay. In addition to this "staple" item, a smaller quantity of different matters should be gathered together for peculiar cases, or particular plants. Peat, for instance, will be found very useful for many kinds of plants. This is not, as is often supposed, mere black sand; but a spongy, fibrous substance from the surface of bogs and boggy wastes. Sand should be collected sharp and clean; the washings from turnpike ditches are as good as anything. Leaf-mould is best got already well decayed from the woods. A load or so of well-decayed cow-manure is a good thing for the gardener to have by him, as all those plants that dislike our hot summers, and want a cool soil to grow in, prefer it to any other manure. A small pile of hot-bed manure is almost indispensable to a garden.—*Gardener's Monthly.*

FARMERS, BE ON YOUR GUARD!—The Pleuro-Pneumonia is among us still, without doubt. We advise every farmer to keep his cattle as closely as possible, as, by this caution, he may keep this pestilence from his stalls. We learn that it now exists in some twenty towns in this State.

A CORRESPONDENT of the Mark Lane *Express*, who highly extols the cabbage for feeding milch cows, store cattle, sheep and swine, and more especially for spring feeding of lambing ewes, says that the average product per acre in England

For the New England Farmer.

RETROSPECTIVE NOTES.

SALTING HAY.—In a previous communication upon this subject which appeared in the weekly *N. E. Farmer* of Nov. 7th, and in the December number of the Monthly, after noticing some of the various opinions and practices to be found among farmers in relation to the application of salt to hay, I proceeded to remark that certain articles which had appeared in the issues of this journal of Sept. 12th and Oct. 3d, were, of themselves, a sufficient specimen of the contradictory opinions which prevail as to the effect of applying salt to hay, and that, though these diverse opinions were often advocated with a *positiveness* which was *amusing* no less than surprising, it is, nevertheless, true that there is *no room for positiveness* as to *any* of the opinions, inasmuch as there is nothing *known with certainty* upon the subject. There have been no accurate observations or experiments sufficient to support *any one* of the various opinions, or strictly speaking, mere suppositions, which are found to be entertained upon this subject; none, at least, that have been reported to the public. It would, indeed, very obviously be a difficult matter to determine by experience or observations *of sufficient accuracy*, what are the effects upon hay of applying this or that quantity of salt to it, when mowed away or put into stack in a condition of more or less dampness, as also what are, or would be, the usual effects of applying this or that amount of salt to a ton or other quantity of hay upon the appetite, the thriving, the general health and good condition of animals fed, either regularly or occasionally, upon such hay.

When this difficulty of making any very accurate experiments or observations, such as we have named, is duly considered, it need not surprise any one that none such have been made, or, at least, that none such have been reported to the public. But whether it has been this difficulty or something else which has prevented our being in possession of any such facts as would be quite desirable in reference to the effect of the application of salt to hay in a rather too damp condition, the important fact remains that the public is not in possession of any knowledge as to the points named which can strictly be called *positive* knowledge, and towards carrying us out of the region of guess-work and uncertain opinion. But no one has ever, so far as we have been able to learn, made any such accurately conducted experiment; and of course we are still in the region of twilight or darkness which surrounds the region which has the benefit of the sun of positive knowledge. Without the facts or results which such experiments might furnish, we have no basis on which to build any valid belief or proposition upon the subject and there is nothing that can be done but to form suppositions, that is, in other words, opinions based on *probability*, not on positive knowledge. Accordingly, we have upon the subject of applying salt to hay quite a variety of opinions—suppositions which seem probable to those who have adopted them; but as there can be *no certainty* it is obvious that we very much need facts and experiments upon this subject.

Having shown that until we shall obtain accurately conducted experiments and facts that are reliable we must remain in our present destitution of positive knowledge, and be left to grope our way in the dark, and that, consequently, there is an urgent need of such facts and experiments, we asked, "Who will give us any?"

In reply to this call for *such* experiments and facts as we then indicated we have as yet had no response. Indeed, we feel very confident that, as yet, no such experiments as we have described have been made, and, of course, there are none to be reported.

In saying that we have had as yet, no response to our call for accurate experiments and facts to the point, we have not overlooked a communication headed "Salting Hay" in the *N. E. Farmer* of Dec. 12th, in which the writer gives us a few items of his experience, but not anything from which we can gather any *positive knowledge* of the kind so much needed. His experiences are not, however, without some value, as the first one narrated shows some of the evil effects of applying too much salt to hay; though the writer has neglected to inform us *how much* was used in the case he mentions, and, of course, left us quite in the dark as to what would be "too much." His other case amounts to this, that he put a peck of salt, say 20 lbs., on a large load of northern clover which was in a state of decay here and there from being lodged, and which he put into a shed while yet the hay was only about half-dry. Afraid, probably, that a peck of salt, say 20 lbs., to a large load of clover, say 1500 lbs., or three-fourths of a ton, would be "too much" to be fed out continuously, he fed out only one foddering of it about twice a week, the craving for salt leading his stock to eat it up clean, butts, decayed portions and all; indeed, as he says, there was not 5 lbs. of the load not eaten. If the decayed portions of the lodged clover were eaten up for the sake of the salt we would question the policy of the proceeding on the same grounds on which we have often condemned the practice of putting brine on musty or otherwise injured hay for the purpose of making cattle eat what could be little short of poison for the sake of the salt left on it by the brine.

Finding myself near the end of my sheet in my former communication I briefly indicated the practice I had adopted, after more than thirty years of trying this and that mode of management as to salting hay and stock, as the only way my limits would allow of answering a natural curiosity of some of my readers. I had practiced putting salt upon all my hay—from about one quart and a half up to four quarts to a ton according to the dryness or dampness thereof—for several years, always having a boy or third hand to put a sprinkling of salt upon each forkful of hay as it was mowed away. At length the boy had better employment at schools and other nurseries of mind, and the difficulty of getting a third hand always at the busy time of haying, which seemed an absolute necessity for getting the salt *properly* distributed, (as putting the whole quantity of salt on at once after the whole was mowed away never seemed a *proper* way,) led me to consider what plan I should adopt next as a substitute for that one I had practiced while I had boys' help convenient. I had become pretty well satisfied that salt applied in the way described did very little, if anything, towards preventing heating, musting, &c., and I had continued it mainly because it was the most convenient way I had yet

thought of for supplying my stock with a little salt at every meal, as human beings prefer to have it. About ten or more years ago, and after having for a year or two employed frequent brinings of hay as I fed it out, as the substitute for applying salt to the hay as it was put into the mow, I met with a statement to the effect that Judge COLBURN had tried the plan of salting his stock in winter by salting their hay and that he had given it up, and adopted the plan of having salt always accessible to all his animals, so they could get it as often and in such quantity as instinct—the almost always unerring guide—should direct them. In the circumstances I should have adopted this method, upon trial at least, whether the proposer of it, or the farmer practicing it, were a judge or a clod-hopper. But knowing that Judge C. was well known in New England as a man of superior intelligence, I named him as the briefest and most effectual way, then at my command, to recommend that mode of managing.

Whether the writer of the article on "Salting Hay" in the issue of December 12th, in his little spiteful fling at my reference to Judge Colburn, has done himself any honor and whether such personalities should be admitted into a paper of this kind, I leave its readers to determine.

MORE ANON.

For the New England Farmer.

CHOPPING FEED FOR HORSES.

MR. EDITOR:—As your correspondent from "Lee, N. H.," suggests, in times like these, when everything edible for the support of the quadruped race (to say nothing of the biped) is so very high it is important to know how to feed animals the most economically. It has been said by writers, with some plausibility, that hay cut finer affords considerable more nutriment than when fed in its natural state. The philosophy of this they say is, that hay contains a large portion of woody substance, which, if only made soluble is nearly equal to starch, and is very nutritious. They say further, in support of their theory, that if hay is cut fine, it is better masticated, absorbs more saliva, and of course becomes more soluble in the animal's stomach.

Some writers say to make it still more nutritive and easy of digestion, it should be steamed, or wet with boiling water. But considerable depends, I think, upon the ripeness of the hay to be used; if it is quite ripe, more is gained by chopping; besides horses will eat hay much better. But if hay is early cut, and the juices remain in it, I can't conceive how much virtue is imparted by chopping. What is true of hay will, I think, hold good with straw, &c. After all, I am satisfied that one great secret in feeding horses is, that we feed *too much hay* when we feed meal and hay separately. Take a healthy, hearty horse, and he will eat just about all of the time, comparatively speaking, to our own detriment and the horse's also. I know whereof I speak, for I used to feed at least one-third more hay (not chopped) to my horse than I now feed, which, I am satisfied was not only a useless expenditure, but *an injury to the horse.* I would not be understood as saying that all feed more than is necessary—for there are some people so stingy that they will barely feed enough to keep their animals living skeletons—but refer to those, more particularly, that grain their horses, and those that feed their animals about as much as they will eat. It is generally conceded that many horses, as a penalty for their owners continually stuffing them on hay, have become heavy and wind-broken.

When corn meal is used I think it very essential to wet it, especially when used in warm weather and in considerable quantities, as there is a good deal of heat in it, more particularly when made of northern corn.

After all, much depends upon circumstances, I believe, about the economy of chopping feed, such, for instance, as the quality of hay and the spare time, &c.; so one must use his own judgment in the matter. Some stable-keepers contend that a driving horse will wear longer fed upon uncut feed, from the fact that it lays lighter in the stomach, and hence the digestive organs become impaired later.

B. F. C.

Sanbornton, Bridge, N. H., 1864.

REMARKS.—We like the common sense views of our correspondent, and hope he will continue to write further upon this or any other subject.

For the New England Farmer.

WASH FOR FRUIT TREES.

DEAR SIR:—Much has been said on the subject of wash for fruit trees, but I think long experience is the best test. I have for twenty years used potash. When I purchased my place the trees were all eaten and covered by the bark scale and white scale; the ends of the limbs and small wood were completely covered. I used potash dissolved in water, one pound to four gallons of water. I put it on with an old broom for the trunk, and a large sponge on a rake-handle for the branches. I found that it not only killed both kinds of scales, but destroyed all of the patches of moss, and made the bark clean. I put the wash on in February or March, and then scrape off the loose bark soon after. I propose washing first, because it kills all the worms or insects in and under the bark, and loosens the bark that ought to come off; if you scrape first, many worms will fall to the ground and escape death. For young trees I use a weaker wash—a quarter of a pound to a pail or a gallon of water. This year I had a quantity of lamp oil that would not burn well, and I put four gallons of oil, ten gallons of water and ten pounds of potash together and made a soap of it. When I used it I put four quarts of it to a pail of water for my old trees, and four pints to a pail of water for my young trees. It has killed the scales and turned the moss all black, but does not injure the trees. I think it will be an improvement on my old way.

The idea that potash injures trees is ridiculous; I have used it for twenty years without the least injury. It should be put on early, before the trunk is tender by the running of the sap. As to pruning, the fall is decidedly the best time, when the bark is hard and no sap under the bark to make it peal or bruise when you step on it, or put your ladder on the branches—as is often done in spring or summer pruning.

S. A. SHURTLEFF.

REMARKS.—In the careful and guarded manner in which Dr. SHURTLEFF uses potash, we confess that there is little or no danger to trees. But

most persons are not so careful, and sometimes destroy the labor of many years by the rash use of potash. We knew an orchard of a hundred trees *destroyed in less than one week* by the use of potash water, one pound to a gallon of water! Potash is an alkali in a very concentrated form, and must always be used with care. Through the indiscreet teachings of some who have gone before us, we have no doubt but thousands of apple trees have been greatly injured or utterly ruined by the use of potash in a too concentrated form. The reader will observe how exact our correspondent is in the quantities he employs.

REMEDY FOR "GRUB IN THE HEAD" OF SHEEP.

MR. EDITOR:—Having noticed an article in the September number of the *Farmer* on worms in the head of sheep, and their treatment, and as I have had quite an experience for twenty or thirty years in the Eastern States upon said treatment, I thought I might, perhaps, confer a favor on wool growers by giving my mode to the public. It is natural for the sheep fly to propagate its species by depositing its larvæ in the nostrils of sheep at what is called the "bridge of the nose." As the weather begins to moderate towards spring, they become a maggot, or grub, and seek to crawl about. If the spring should turn out to be late, so as to prevent their seeking the open air, they will follow up the outside cavity of the skull to the brain, and thus destroy the sheep.

About the first of March, make a mixture of one quart of tar, one pint of spirits of turpentine, one pint of linseed oil: simmer well, and when cool mix two ounces of black pepper ground fine. Make a small swab by winding tow or flax on a small, tough stick, dip it in the mixture and gently slip it up the nostril to the bridge of the nose. Go through the flock in this manner. If on the barn floor, you will find grubs there in a little while. The turpentine kills, the oil loosens, the pepper makes the sheep sneeze them out, tar is healing. I never knew a sheep to die of grub in the head after being treated as above, that season.

Preventive.—Take the above mixture without the pepper, and go through the flock as above in October, or prior to putting them into winter quarters, as it will destroy all the parasites, and the sheep will do well through the winter.

Truly yours,

—*Wisconsin Farmer.* GILBERT ALLARD.

COAL ASHES ON GRASS.—I have experimented with coal ashes and find them well worth applying, although it is doubtful whether they will pay for a long cartage. I staked out a piece in an old meadow and spread coal ashes on quite thick, early in spring. The influence was quite as apparent as a coat of manure or of plaster would have been. It started clover, and the grass was much higher and thicker. There is in most coal ashes from stoves, a small quantity of wood ashes, but not enough to account for the effect produced on my meadow. I agree with you that it is better to spread coal ashes on the soil than

THE MUSKRAT.

When our river overflows its banks in the spring, the wind from the meadows is laden with a strong scent of musk, and by its freshness advertises me of an unexplored wildness. Those backwoods are not far off then. I am affected by the sight of the cabins of the muskrat, made of mud and grass, and raised three or four feet along the river, as when I read of the barrows of Asia. The muskrat is the beaver of the settled States. Their number has even increased within a few years in this vicinity. Among the rivers which empty into the Merrimack, the Concord is known to the boatmen as a dead stream. The Indians are said to have called it Musketaquid, or Prairie river. Its current being much more sluggish, and its water more muddy than the rest, it abounds more in fish and game of every kind. According to the history of the town, "The fur trade was here once very important. As early as 1641, a company was formed in the colony, of which Major Willard, of Concord, was superintendent, and had the exclusive right to trade with the Indians in furs and other articles; and for this right they were obliged to pay into the public treasury one-twentieth of all the furs they obtained." There are trappers in our midst still, as well as on the streams of the far West, who night and morning go the rounds of their traps, without fear of the Indian. One of these takes from one hundred and fifty to two hundred muskrats in a year, and even thirty-six have been shot by one man in a day. Their fur, which is not nearly as valuable as formerly, is in good condition in the winter and spring only; and upon the breaking up of the ice, when they are driven out of their holes by the water, the greatest number are shot from boats, either swimming or resting on their stools, or slight supports of grass and reeds, by the side of the stream. Though they exhibit considerable cunning at other times, they are easily taken in a trap, which has only to be placed in their holes, or wherever they frequent, without any bait being used, though it is sometimes rubbed with their musk. In the winter the hunter cuts holes in the ice, and shoots them when they come to the surface. Their burrows are usually in the high banks of the river, with the entrance under water, and rising within to above the level of high water. Sometimes their nests composed of dried meadow grass and flags, may be discovered where the bank is low and spongy, by the yielding of the ground under the feet. They have from three to seven or eight young in the spring.

Frequently, in the morning or evening, a long ripple is seen in the still water, where a muskrat is crossing the stream, with only its nose above the surface, and sometimes a green bough in its mouth to build its house with. When it finds itself observed, it will dive and swim five or six rods under water, and at length conceal itself in its hole, or the weeds. It will remain under water for ten minutes at a time, and on one occasion has been seen, when undistured, to form an air-bubble under the ice, which contracted and expanded as it breathed at leisure. When it suspects danger on shore, it will stand erect like a squirrel, and survey its neighborhood for several minutes without moving.

In the fall, if a meadow intervene between their

and grass, three or four feet high, near its edge. These are not their breeding-places, though young are sometimes found in them in late freshets, but rather their hunting-lodges, to which they resort in the winter with their food, and for shelter. Their food consists chiefly of flags and fresh-water muscles, the shells of the latter being left in large quantities around their lodges in the spring.

The Penobscot Indian wears the entire skin of a muskrat, with the legs and tail dangling, and the head caught under his girdle, for a pouch, into which he puts his fishing-tackle, and essences to scent his traps with.—*Thoreau.*

BARK-LOUSE PARASITES.

The editor of the *Wisconsin Farmer* wrote to the Entomologist of the United States Agricultural Department inquiring if there were any parasites of the bark-louse of apple trees known to naturalists, and suggesting, if there were in any other countries any insects that preyed upon these destructive scales, that they be imported. The following is the reply, dated Department of Agriculture, Washington, D. C., 11th Dec., 1863.

DEAR SIR:—In answer to your query as to whether there is any parasitic insect which destroys the apple bark-louse or scale insects, I can merely state that I have seen scales perforated by some parasite, but have not as yet found the perfect fly. Dr. Fitch, however, in his valuable report (see first report, p. 36,) states that under the scales he has repeatedly met with a small maggot, feeding upon the eggs, which are deposited underneath the case or shell, and supposes it to be the larva of some minute Hymenopterous insect, which, when fully developed, eats its way out of the empty shell. You most probably have seen the same parasite in your neighborhood, and can readily find out by examining the coccus with a magnifying glass. If there are any with a small round perforation on the upper side, you may rest assured that there will be no necessity to import.

TOWNSEND GLOVER.

DEPTH OF COAL BEDS.—Heath's mine in Virginia, is represented to contain a coal bed fifty feet in thickness; a coal bed near Wilkesbarre, Pa., is said to be twenty-five feet thick; at Mauch Chunk is a coal bed forty to fifty feet deep; and in the basin of the Schuylkill are fifty alternate seams of coal, twenty-five of which are more than three feet in thickness. In Nova Scotia is a coal formation fourteen hundred feet deep, and containing seventy-five alternate layers of coal. The Whitehaven coal mine, in England, has been worked twelve hundred feet deep, and extends a mile under the sea; and the Newcastle coal mine, in the same country, has been worked to the depth of fifteen hundred feet and bored to a similar additional depth, without finding the bottom of the coal measure.—*Miners' Journal.*

POULTRY.—Give poultry warm, dry, sunny, well whitewashed quarters, clean straw in their nests, and a good feed of grain, once a day; scraps from the frying-pot, and unchilled water, or trough of running water; keep an ash-box in one corner, always dry and dusty, and throw in fresh ashes or lime occasionally.

SINGULAR ACCIDENT TO A HORSE.

While Col. J. S. KEYES, U. S. Marshal of the Boston District, was riding through one of the streets in Concord, on Saturday, Feb. 13, his mare stept upon the end of a stick, about four feet long, with one of her forward feet, which brought the other end up against her side, near the flank, penetrating through the skin and thin layers of muscles lying under it, and cutting a place about six inches long in the delicate membrane that covers the intestines. The mare reared, plunged and kicked fearfully for a time, and fell to the ground, a mass of the intestines as large as a man's hat protruding from the wound. She was taken as quickly as possibly to the stable, put under the influence of chloroform, and the wound properly cleansed and sewed up. She continued to eat and drink pretty well until the following Tuesday, when spasms ensued and she died.

This mare was one of the finest roadsters in Middlesex county, and was valued almost beyond price by the Marshal. She was elegant, mild in temper, courageous, enduring and splendid in style and action.

We notice this as a caution to persons *not to drive horses over loose sticks that lie in the path.* It is always dangerous, though such serious accidents as this do not often occur.

IS POULTRY PROFITABLE?—The Springfield *Republican* of Friday discusses this subject and cites the experience of a gentleman of that city, who, from a lot of fifty-two hens and five ducks, netted a total profit in six months, from January to July, of $21.96. We have a friend who has kept, during the past three or four years, an average of twelve or fourteen hens. His yard is small, and the hens are kept shut up nearly the whole year round, and with the exception of what comes from the table he has bought all their food. The result of his experience for the three years has been as follows: Cost of keeping, $49.67. Eggs—crediting them at the market price—$79.-37. The Springfield man credited his eggs at from 22 to 36 cents; our Boston friend credited his at from 20 to 25. There is no doubt but a few hens, well cared for, will pay well and keep a family constantly supplied with what is a real luxury—fresh eggs.

TO CURE SHEEP FROM JUMPING.—A correspondent of the *Ohio Farmer* gives the following curious account of the method adopted by him to prevent his sheep from jumping the fences of his pasture: "I want to tell you about my jumping sheep, and how I broke them. I got them in a pen built sufficiently to hold them; I then caught the ringleaders one at a time, and made a small hole in each ear. I then took a cord or string and run through the holes in the ears together close enough to keep them from working the ears; I then let them out and they are as quiet as any sheep."

The cranberry crop of Cape Cod amounts to 3,899 barrels, valued at $38,660 25.

ACTION OF ROOTS OF PLANTS.

At a recent agricultural discussion, one of the speakers thought the interest of farmers might be greatly promoted by a more thorough analysis of soils then has ever yet been made. This idea was once a favorite one with some of the best English and American writers, but we believe that little importance is now attached to it. There are so many reasons why the soil of a single acre, even, should vary in its component parts, and it is so difficult for the most skilful chemist to state with certainty what the homogeneous character of that acre would be, that very little confidence is now placed in any analysis of the soil.

Again, if we actually *possessed* that character, we know so little of the laws of supply and growth, that it would be quite doubtful whether we should derive much benefit, from an accurate analysis, were we so happy as to secure one. With regard to the food that nourishes and sustains the plants we cultivate, we know but little more than this general truth, *that the liberal application of a mixed mass of vegetable, animal and mineral matter*, will greatly promote the growth of plants, and when other essentials are properly supplied, such as heat, moisture, and careful culture, the crop will generally result in a profit to the cultivator. Farmers must therefore act upon this broad and safe rule, and *not rely* upon any specific fertilizers for success.

The roots of plants have an *elective* power. That is, if a bone is buried in the soil near a young tree, the roots of that tree will leave the direction in which they started, find the bone and encircle it with numerous little feeders or fibrous roots. On partly digging about a young peach tree, and then pulling upon it, a friend informs us that the tree came up and brought with it a good sized bone, completely surrounded by a network of fine roots! The same person has a splendid elm near his house which is 18 feet in circumference, 20 feet to the first limbs, and the branches extend 96 feet. Two rods from the stem of this tree, an ox load of manure was dropt for a special purpose, but was not used for four months. On attempting to take it away it could not be shoveled, the implement being obstructed as though hay or straw were mixed with the manure. Upon removing it with a fork, it was found penetrated in every direction with a mass of roots which had sprung from the roots of the elm tree and come up through the sward into the manure heap to feed upon it. Was not that *choosing for themselves* the best path to take to find the food they wanted. So it is with the *branches* of trees. A white birch springing up under an oak, will turn its twigs away from the tree, towards the sun and light, long before they are likely to come in contact with the branches of the oak. On a country highway, some of the smaller trees may often be seen leaning over the road from *both sides*, in order to get away from larger trees, and get a proper share of sun and light.

We once had occasion to remove a row of young apple trees which were about three years from the bud. They were set along the edge of a well cultivated garden, and two feet beyond them was a mowing field of several acres. In taking up the whole row of some dozen trees, not a single root, on the grass side, was found a foot in length, and but few of any length or size. On the garden side they were numerous, and some of them three feet long! Did they not *choose* where to go? There was a clean, rich strip of soil, two feet wide between the trees and the grass. Why did not their roots run and feed there? Who notified them that the grass is a *usurper*—that it would seize and hold the soil, rob it of its fertilizing properties, and leave the apple tree roots to starve and die, if they went there? How little we know of the operation of the laws that govern vegetable growth. How gratifying and instructive to explore them with all the powers we possess.

HOW TO GET GOOD CELERY.

Sow the seed in a hotbed in March, or as early as the weather will permit. Some prefer a cold bed, starting it in some warm place as soon as the soil is sufficiently dry to work it. As soon as the season will permit, and the plants have attained a proper size, transplant them into a rich, warm spot. Set them four inches apart, give them a liberal watering, and shelter them from the sun until they have taken root. Here let them grow until about the first of July, when they must be planted where they are to grow through the season.

In preparing for this, some dig trenches to set the plants in, and others do not. We have cultivated in both ways with about equal success. If a trench is decided upon, dig it eight or ten inches deep, spade the bottom and make it fine, add a coat of composted manure, then rich mould and set the plants. The plants must be taken up with care, and with all the earth adhering to them that is possible. Set them six or eight inches apart, after trimming off all the straggling leaves, then give them a good watering, and let them be shaded with boards until they strike root and begin to grow. The trenches should be four feet apart. If the weather is dry, water freely morning and evening

After the plants have attained considerable size, and when they are dry, the earth must be drawn around them a little at a time, as they progress, taking care always that the leaves be held together so as to prevent the soil from getting in among

them. By earthing up gradually, the stems are bleached and become tender and crisp.

It should stand out doors until there is danger of frost, which ought not to touch it. There are various modes of keeping it. Ours is, to take it up with as much of the soil as we can save about the roots, and set it out in a cool cellar, in a plenty of the earth in which it grew. If the plants are set a little apart, and the temperature of the cellar is cool and even, they will keep fresh and ready for use until April or May.

If the plants are set on the surface of the ground, as cabbage plants are usually set, the same process of earthing up must be observed.

No weeds should be allowed to grow among the plant, and the ground should be frequently stirred with the hoe or some other implement.

Celery is easily cultivated. There is no mystery about it, whatever. Any farmer's son or daughter may do it that will try. If one prefers, he can purchase the plants ready for transplanting.

Fifty to a hundred of them might be enough for a family.

It is a convenient and healthful salad, and should be more common on the tables of our farmers.

NEW BOOKS.

FLOWERS FOR THE PARLOR AND GARDEN. By EDWARD SPRAGUE RAND, JR. Illustrations by John Andrew, and A. C. Warren. J. E. Tilton & Co., Washington St., Boston.

It is one thing to write a book and make it barely interesting, so that it shall have a place in the memory for a month or a year, and then pass away and be forgotten like a summer cloud or our dinner of yesterday. It is quite another matter to write a book that shall not only attract and charm the reader while perusing it, but which, when perused, shall leave such an impression on the mind as will reproduce that charm whenever the subjects of which it treated are again introduced. The book before us is of the latter class. It is a teacher. The subjects which it discusses are so clearly and wisely stated, that the most inexperienced in them may feel courage and safety in following the details given. They are full, yet brief, and always include those minor points without which the whole would be valueless. An example of what we mean may be found on page 94, in describing the methods of propagating the charming Verbena. There is nothing omitted here, it seems to us, that the merest novice would desire to know. It is a model description.

The general subjects of the book are, *The Green House and Conservatory; Window Gardening; Plants for Window Gardening; Cape Bulbs; Dutch Bulbs; The Culture of the Tube Rose; The Gladiolus and its Culture; How to Force Flowers to Bloom in Winter; Balcony Gardening; The Wardian Case; Stocking and Managing the Wardian Case; Hanging Baskets and Plants; The Waltonian Case; The Aquarium and Water Plants; How to Grow Specimen Plants; Out-Door Gardening—Hot Beds; The Garden; Small Trees and Shrubs; Hardy Herbaceous Plants; Hardy Annuals; Bedding Plants; Hardy and Half-Hardy Garden Bulbs; Spring Flowers, and Where to find Them.*

The very titles of the chapters are enough to inspire one to rush from the house to the garden, even in mid-winter! The chapter on *Spring Flowers, and Where to find Them*, is a gem. Who that reads it will not anticipate the spring with quicker pulses and more impatience than ever!

The book is a civilizer. It abounds with beautiful, refreshing thoughts, clothed in such simple and expressive language, that they cannot fail to reach every feeling heart. The artist, printer and binder have so come to the aid of the author, that there is a nice blending of thought and art that is rarely equalled. We cannot but feel under personal obligations to the writer for such a work, as we always do to those who confer blessings upon the race.

We trust the pen of the author will still be active in this flowery field.

CULTURE OF LETTUCE.

Everybody, we believe, likes lettuce. It is considered healthful, has a slight narcotic influence on the system, and, perhaps, may be especially useful to such nervous temperaments as find it difficult to secure a *nap after dinner!*

It thrives best in a light, rich soil; a soil that is rich from prior cultivation, rather than from the immediate application of manure.

If it is wanted quite early—and that seems desirable—the seeds must be sown in a hot bed in March, and transplanted in April, in a spot favorably protected from cold winds; and even here, it may need occasional covering. It only requires proper cultivation after this to secure a crop. Allow sufficient room between the plants for them to head out without crowding each other, and an occasional evening watering if the weather is dry.

Those who keep poultry will find it worth cultivating for their use. They are excessively fond of it. A dozen hens will eat two large heads each day if they can get them. The store pigs like it equally as well. We have been in the habit of growing it along the sides of the paths in the vegetable garden, and on any little vacant spots, where it appears well, and gives us a cart load or two each summer for the pigs and the hens!

There are many varieties of lettuce, among which, four excellent kinds are the Early White Butter, or Cabbage, the Early Curled Silesia, Early Tennis Ball, or Rose, and the Imperial Head, or Sugar Loaf.

For the New England Farmer.

GRAPES.

The grape is a native of Asia, but is also indigenous to America. Though it is better adapted to a milder climate and to a soil more impregnated with sulphur and limestone than that of New England, yet the fact that it is found in a wild state in our forests, by the side of small streams, stone walls and large rocks, proves that it is not entirely unnatural to this part of the country. High cultivation also shows that grapes can be raised here with considerable success, though always "under difficulties." New England will probably never be a wine-producing country to any considerable extent, but if, with any reasonable amount of labor and expense, grapes can be cultivated sufficient for the table, they are worthy of much more attention than farmers have yet given them. The encouragement is certainly sufficient to incite us all to much greater attention to this branch of horticulture.

Grape vines, properly attended to, attain to a great age and a great size. In Italy, vineyards have continued in bearing 300 years, and a vineyard of 100 years is still considered young. Pliny mentions a vine which had lived 600 years. A vine which was trained against a row of houses in Yorkshire, England, covered a space of 137 square yards, and the stem was three feet and eleven inches in circumference. The celebrated vine in Hampton Court, was planted in 1769. Its stem is fourteen inches in girth, and one of its branches extends nearly 200 feet. George the Third directed his gardener to cut from it one hundred dozen bunches of grapes for the players in Drury Lane Theatre, and the gardener sent him word that he could cut as many more without stripping the vine. In California and New Jersey, vines have attained a size and have borne quantities of fruit, which would astonish New Englanders.

There is another circumstance which is unfavorable to the cultivation of the grape in this immediate vicinity. We are too near the ocean. Humboldt says "grapes do the best in the interior, away from the seaboard, not only because it is warmer, but on account of the clearer state of the heavens."

But let us inquire what is the best we can do, in the unfavorable conditions in which we are placed, in the out-of-door cultivation of grapes; for I suppose that farmers generally will never cultivate them under glass, either in hot houses or in cold graperies.

What, then, is the best site for grape vines?

A southern, or a southeastern exposure on a hill, is probably the best position. Not on the top of a hill, for that would be too much exposed to the winds, nor at the bottom, for that would be too much exposed to excessive dampness, unless the ground is thoroughly underdrained, but about the middle of the hill, where both these evils will be comparatively avoided. When a person proposes to cultivate a very few vines only, it can be done to great advantage on the southerly side of buildings and of large rocks or boulders; and even in cities, where only a few feet of land are at command, grapes can be raised with success, if they have a southern exposure. The best fruit is produced where the vine receives the most sun, not, as many suppose, upon the fruit, but, upon the foliage. It is the leaves which elaborate the nourishment for the fruit, and not the fruit for itself. It is a great mistake to take off the leaves, for the purpose of exposing the fruit more directly to the rays of the sun, until, at least, a few days before it is gathered. Some of the best fruit is that which is almost covered up by the leaves, and which hangs partly behind the slats of the trellis, and is never exposed to the direct action of the sun. Removing the leaves around the fruit before the ripening process commences, is as injurious as removing the suckers from corn, and for the same reason. They are needed as the breathing apparatus for the vine, for the protection of the canes from the fierce action of the sun, and for elaborating from the atmosphere and the soil, in due proportions and in proper combinations, the sustenance necessary for the growth and perfection of the fruit. The French call the leaves the "parasols" to protect the vine.

How should the border of the vines be prepared?

Inexperienced cultivators are apt to make the border too rich. "Good, rich soils," says Redding, "never produce even tolerable fruit." The richest vines in France, and Italy, and on the banks of the Rhine are grown on the *debris* of volcanoes and on the sides of mountains, as if the cultivators left everything to nature. At any rate, the ground should not be highly manured with unfermented barnyard manure. Though grapes will grow well where the land is deeply plowed, yet, as the vine is expected to stand many years in the same place, it is better that the ground be trenched to the depth of two and a half or three feet. The subsoil should be entirely removed, and the bottom so thoroughly drained that water shall never permanently stand under the roots. It is an old maxim with vine-dressers that "grapes will never grow with wet feet." On a side hill, such draining is easy. The space should then be filled in with brickbats, lime rubbish, oyster shells, broken bones, scrapings of the streets, sods from old pastures where cattle have been yarded, with a liberal mixture of decomposed manure, ashes, hair and other refuse from slaughter-houses, and particularly a large percentage of vegetable mould or decayed leaves. The trench should be at least twenty feet in diameter, as the roots of flourishing vines need ample room in which to luxuriate. The greatest growth of wood, perhaps, can be obtained where the vine is planted near a spring of running water, and very highly enriched with coarse, undecomposed manure and night soil; but if the best quality of fruit is desired, a dry location and the fertilizers above mentioned are unquestionably the best.

Where it is proposed to set out grape vines in rows they should run from north to south. Many cultivators make a serious mistake, in my apprehension, by setting the rows east and west. They do so, as they allege, for the purpose of giving the fruit a southern exposure. But a moment's reflection will convince any one that where the trellises run north and south, both sides of the leaves will, in the course of the day, be much more exposed to the rays of the sun, than in any other position.

What are the best grapes for this climate?

The Delaware, I think, stands at the head of the list. It is indeed a small grape, but its smallness is more than counterbalanced by its adapta-

tion to this climate, its early ripening, its numerous clusters, and the remarkably delicate and saccharine character of the fruit. In this latter respect it is unequalled, unless it is by some of the foreign varieties which must be raised under glass. When the fruit is perfectly ripe, it is as nearly translucent as the White Sweet-water, and more sweet, as the Sweet-water has a slight watery taste. It ripens three weeks earlier than the Isabella. In every respect but size, the Delaware is A No. 1, for open air culture. Some have thought it specially liable to mildew, but I do not think they will entertain that opinion after they have given it a fair trial and proper cultivation. Its excellent qualities are as yet but little known in this section of the country. Prince says "it is our highest flavored and most delicious hardy grape."

The Diana originated in Boston, and is of course adapted to this latitude. It is a vigorous grower, a good bearer, and extremely hardy. The bunches are large, the flavor excellent, and the fruit can be kept for use in the winter.

The Hartford Prolific is a hardy and productive variety. The berry is large and round, black and covered with bloom. It ripens at least two weeks before the Isabella, and superior cultivation will quite effectively prevent the fruit from falling from the stem. When thoroughly ripened, it is highly saccharine.

The Concord, though hardy and prolific, is by no means a grape of the first class. The fruit is large and beautiful, but it has a thick skin, and the pulp has considerable toughness and native pungency. It is worthy, however, of a place in our gardens.

The Isabella, so well known among us, is an excellent grape when it is well ripened. It has lost the high standing which it held thirty or forty years ago, before earlier varieties were introduced. It does not usually ripen well oftener than once in three or four years.

The Catawba, the great wine grape of Ohio, does not succeed so well in this climate. I have raised a few specimens of this superior fruit, but it is not equal to the Ohio grapes. Its great excellence, however, demands further trials.

I have also several of Rogers' Hybrids and Allen's Hybrids, which may fruit the present season. They are said to possess many excellent qualities by those who have tested them. Col. Wilder believes that some of Rogers' Hybrids stand in the very first class of hardy native grapes.

What is the best method of pruning grape vines?

This depends very much upon the system which is adopted for the growth of the vine, whether it be the fan, the long cane, or the renewal system. The details of pruning are so numerous and intricate that they cannot be specified in this paper; but they can be found in any of the best books on the culture of grapes. It is proper, however, to say, in general, that the grape attempts more than it can perform. The secret of proper pruning, then, seems to consist in attention to these three points: to keep up a sufficient number of fruit-bearing canes, to keep them all within proper limits and to keep the fruit properly thinned. Peaches always bear fruit, if at all, upon the last year's shoots; pears either upon those formed the last year or upon older wood; but the grape, unlike them both, bears only upon shoots of the current year, although those shoots may proceed from the last year's wood, or from that which is much older. There is always a contest going on between the fruit and the tendrils. If the growth of the vine is too rampant, many of the fruit blossoms will be converted into tendrils, and long and useless wood will be produced rather than fruit. Pruning, then, should be thoroughly performed, not by using the knife, but by pinching off the ends of the canes at least three times during the months of August and September, that the vital forces of the vine may be concentrated in the fruit. This shortening-in process will also make much sounder wood for use in subsequent years. A fine show of blossom buds, on which the inexperienced cultivator relied in the spring for a large quantity of fruit in the autumn, have often disappointed him, because he was not aware of the fact that fruit buds will often turn into tendrils, if the ambitious canes are allowed to have their own way. Like a great many "fast young men," want of control works their ruin. The philosophy of this is almost self-evident. The farther the canes, in their excessive ambition, are allowed to run, the more tendrils will be required to support them. If they are sufficiently headed in, so many tendrils will not be needed, and the buds from which they proceed, not wanted for tendrils, will turn their attention to fruit-making. This single fact of heading-in several times during the season, makes very much of the difference between the wild and useless vines of our woods, and the fine and delicate grapes of our gardens. In the one case, by neglect, they run from year to year into a knotted and tangled mass of mere vines without fruit, or with a small amount of very indifferent fruit; and in the other, by close pruning, they are kept within reasonable bounds, and the vital forces of the plant are directed to the formation of those delicious grapes which adorn our tables and contribute so largely to our health and enjoyment.

Where there is such a concentration of the forces of the vine in the production of fruit, the fruit itself may require, near the close of the season, to be thinned out several times. If this is not done, the vine will be injured, if not destroyed, by excessive bearing, and the fruit itself will be comparatively insipid. All the defective berries, and all the small grapes on the ends of the clusters which will never come to maturity, should be carefully removed. Sometimes, too, the quantity of fruit is so enormous, that a third part, and even two-thirds of the entire crop should be cut out. It requires a pretty hard heart to destroy so much tempting fruit, but the necessity is imperative, and it must be done. This is one of the few cases where a hard heart is at all useful.

Waltham, Feb., 1864. C.

REMEDY FOR EARACHE.—M. Duval says he has found relief in severe earache, other means failing, from a mixture of equal parts of chloroform and laudanum, a little being introduced on a piece of cotton. The first effect is a sensation of cold, then numbness, followed by a scarcely perceptible pain and refreshing sleep.—*Brit. Med. Journal.*

HAIL-STONES sometimes fall with a velocity of 113 feet in a second, and rain at 43 feet in a second.

EXTRACTS AND REPLIES.

Cutting Feed for Horses.

I notice in the *New England Farmer* weekly, of Feb. 6, 1864, a communication from "J. F. L.," of Lee, N. H., with the above heading. The question upon which he wants information is this:

Is it of advantage to a horse to cut his feed, and is it a more economical way for his owner to support him than by feeding his hay and grain separately?

I will simply give "J. F. L." my experience for the last ten or twelve years: About twelve or fourteen years ago, (I am not now able to state the exact time,) I was very short of hay, and as cutting feed was highly recommended as being a great saving in fodder, I made up my mind to give it a fair trial. Accordingly I purchased one of Ruggles, Nourse & Mason's Hay Cutters, and commenced operations. I cut three-quarters of all the fodder I fed out that winter, and fed it to horses, oxen, cows and young cattle. My stock came out in the spring all in good heart, and by adding some grain I had hay enough to carry my stock through the winter, without buying hay. I was satisfied that, had I bought fifty dollars' worth of hay, and fed it all without cutting it, that my stock would not have come out in the spring in as good condition as they did; and I have practiced cutting feed more or less for my stock ever since, especially for my horses, and I think with beneficial results. I think that two tons of hay cut, and their grain ground and mixed together, is worth as much as three tons fed without cutting with the same quantity of grain fed whole, to a horse team that works daily. I have used several kinds of cutters, but the one that I now have, (Ruggles, Nourse & Mason's, No. 4,) is the best I ever used. Price at my door, $9.10, twelve years ago. G. W. PUTNAM.

Andover, Vt., Feb. 19, 1864.

Salting Hay.

Those who adopt this mode of trying to preserve half cured or dampish hay from mouldiness, or other damage should be careful to avoid over-dosing with salt, as it would appear from a communication by S. E. TODD in the *Country Gentleman* of Feb. 4, that scours in sheep are often caused by such over-salting. Mr. Todd says that in doctoring for this or any other complaint, the *cause* should be discovered if possible and removed; and then remarks, "Some farmers salt their hay in summer very bountifully, so that the entire mow or stack of it, when fed out, is as thoroughly impregnated with saline particles, as salt beef or pork. Such fodder would be a sufficient cause of scours."

MORE ANON.

Ashes with Manures.

Is it good economy to mix ashes with hen manure or any other manure that contains ammonia? I have used hen manure mixed with sand, or scrapings round the buildings, with good results; also superphosphate. One of my neighbors used superphosphate and the effect was observable till the corn was full grown, at the distance of a mile. He told me that on either side of those rows left without the superphosphate, the corn was twice as heavy. W. B. W.

REMARKS.—Wood ashes should not be mixed with any manures. A better way is to use the ashes by itself, or compost it with muck.

There is so little alkali in *coal ashes*, that they make an excellent divider for the droppings of hens.

Disease in Apples.

With regard to the "Disease in Apples" mentioned in the *Farmer* of Feb 20, I would state, that at the time the scarcity of apples commenced the trees, were yielding every other year—and sometimes skipping two years without much yield—only a small quantity and very poor. I think it was about 1850, I noticed those spots mentioned by Mr. McIntire, on greenings, accompanied by a very bitter taste in the part of the apple under the spots. At that time apples were brought from New York State here, the yield having been more plentiful there; and among those we bought were some beautiful sweet ones. I never tasted much better apples; some were badly affected; the spots were about the size of a pea, singly and in cluster. These were worse than the greenings. In some the bitter taste pervaded the entire apple, although the spots were only in a cluster on one end. Some were so bad we could not use them. The apples were not rotten at all; it had the appearance of a dry, hard scab. I have not seen any similarly affected this year, but thought I would give the preceding facts, as they may recall similar cases to the recollection of other individuals. LUCY A. ADAMS.

East Brookfield, Feb. 20, 1864.

For the New England Farmer.

SEEDING LAND TO GRASS.

The vast importance of the hay crop to the inhabitants of the United States calls for the practical experience of every intelligent farmer. We are apt to look at facts in an isolated point of view. When we take into consideration the failure of one single piece of land that has been laid down to grass, we regard it as unfortunate; but if those failures were all put into one great total the aggregate loss to the whole country would probably astonish us. The hay crop of the free States in 1850 was 12,690,982 tons, worth considerably more in dollars and cents than all the cotton, tobacco, rice, hay, hemp and cane-sugar, annually produced in fifteen slave States; and this at $11.20 per ton,* amounting to $142,138,998. Cotton is no longer king. And, again, "the grass crop of the New England States, for the year 1862, was nearly one hundred millions of dollars."†

In asserting two extremes which are open to discussion, the medium track is generally the safest, and often proves true; such is the fact we apprehend with regard to the question at issue, as to whether the shading of land is beneficial or not to the germination of grass seed and the growth of the grass. There can be no question but what, as a matter of economy, it is best to sow some kind of grain with grass seed; at least, no one has ever demonstrated to the contrary, or proved that it is better, or more economical, to sow grass seed alone. I, therefore, must answer in the affirmative, viz: that it is best to sow some kind of grain with grass seed, that is, so far as my experience teaches me at present, but we do not arrive at this conclusion solely from the fact that we think that grass ought to be "shaded," but would it pay to sow it separately, taking into consideration the amount of land expenses?

A rotation of crops is recommended. A farmer turns over say ten acres of sward, and plants it to corn and potatoes; if he plows in the fall, which he ought to do, the sod will become sufficiently pulverized and mellow by the following season, so that he can "lay down" his land to grass; or even if he plows in the spring, on most soils, he can do it. Now what better way is there than to sow a crop of oats, rye, or barley, then his grass seed; and two very important and somewhat expensive results have been accomplished under one operation? But still, let there be a well-pulverized piece of land thoroughly prepared for grass exclusively, and enriched as it should be for clover, herds-grass and red-top, which usually go together, and why should they not? Let this mixture of seed be sown broad-cast, and evenly on the land, then very lightly harrowed, bushed and rolled, and that that grass would not spring as well, grow as well, come to maturity as well, and yield as much as though it had been shaded, we

would be hard to demonstrate.

The writer of this article has had some experience for the last thirty years on the subject in question, and has arrived at one conclusion, demonstrated by facts, which actually occur; it is this: let there be any given amount of land prepared in the spring of the year, say for oats, sow one-half to oats and the other half to rye, or any part to oats and the other to rye, only let them be right side by side; the land shall be prepared just alike, exactly, and seeded alike, exactly, to grass, and there will be at least one-half more grass in the land sown to rye than on the land sown to oats. The land where the rye is will be completely covered like a mat; and where the oats are, extremely spare; we never knew it to fail, and have often tried it, having had occasion to sow spring rye in that way, to save the unnecessary expense of breaking up land elsewhere. Now this proves, 1, that grass will grow well when it is shaded some; 2, that it may be shaded too much, (unless there is some other way to account for the non-appearance of the grass among the oats other than the great amount of loam, which everybody says is the cause.) But it does not prove, in the third place, but what the grass would have grown just as well as if it had not been shaded any. But the question cannot, we think, be fairly answered without being thoroughly experimented upon. It is possible that grass might be made to grow better sown by itself entirely, and yet taking into consideration the extra cost, it might not pay, and would be better to sow grain with it. So that, as we said before, we shall take the medium course and continue to sow grass seed with some kind of grain, until some further developments appear. And hoping that some able pen may discuss this subject more at length, I close. J. F.

Uxbridge, Jan. 19, 1864.

*See compendium of the "Impending Crisis of the South," page 29—35.

†See *New England Farmer*, last vol., No. 46.

For the New England Farmer.

WHAT ELSE SHOULD BE TAUGHT IN THE SCHOOLS?

Every farmer must, of necessity, be more or less of a mechanic. He has to raise heavy weights; he should know what a lever is, and how power is gained by it. He has to weigh, and does not want to cheat or be cheated. He ought to know how scales and steelyards are constructed, and on what principle. He has to make roads, and to drive heavy loads up hill and down. He ought to know the principles of the inclined plane. Sixty years ago there was a mania for turnpikes. Straight roads were made from Boston to Newburyport,—from Boston to Worcester,—from Boston to Concord,—and various roads connecting other places. These roads, often made at great expense, went, not unfrequently, directly over considerable hills, when a nearly level road might have been made, at far less expense, by a trifling departure from a straight line. There are several remarkable instances of this mistake, to be seen on the three turnpikes I have named, within ten miles of Boston. Even at the present day, with vastly increased intercourse, the hilly parts of these roads are very little used. No loaded wagon, and few heavily laden vehicles of any kind, go over these hills, except in cases of absolute necessity.

If the simple fact had been known, that, to convey a load to the top of a hill, the whole weight must be actually lifted perpendicularly, to a height equal to the perpendicular height of the hill, and made to surmount, in addition, all the inequalities of the road, the greater part of all this useless expense would have been saved. Now, no more instruction is given upon the principles of the inclined plane, in the common schools,—the only schools to which the boys of the greater part of the State have access,—than was given sixty years ago.

Every farmer has frequent occasion to use ropes, and, not seldom, tackles; he ought, therefore, to be acquainted with the principles of the rope machine, the toggle joint and the pulley; and they ought to be taught in the common schools.

Every farmer ought to understand enough of machinery to see into the working of a grist mill, a saw mill, a wind mill, or of any of the mowing machines, threshing machines, or other machines used in agriculture. He will have occasion to use one or more of these mills and machines, and he may wish to construct or superintend the construction of any one of them. He ought, therefore, to study the elements of machinery, elements perfectly simple when taken individually, and yet which may become very complex and difficult to comprehend, when seen combined.

Almost every farmer has occasion to dig ditches, to build dikes, and to dig wells, and employ, and often to repair, pumps. He ought, therefore, to understand the principles of the pressure of water, so as to be able to build wells and dikes effectually to resist that pressure. He ought, then, to study what are called hydrostatics and hydraulics. When he understands them,—and they are more easy to understand than most things in history, arithmetic and grammar, and many things in geography,—when he understands them, he will be able to direct, with very little aid, the building of hydraulic presses and pipes, and other water conveyances of every kind.

The farmer ought to understand on what principles it is that the pressure of air causes water to rise in the pipe of his pump, and thus renders a common pump possible, and how the common lifting pump and the common forcing pump act. That is, he ought to study the elementary principles of pneumatics. These are hard Greek names; but the things themselves and the principles on which they operate are as intelligible, with proper books and tolerable instruction, as anything in the plainest English. In addition to these things, he ought to know something of the action and laws of heat. He ought to know how much heat will convert snow or ice into water; how much additional heat will raise the water to the boiling point, and how much will convert it all into steam; and how much heat will be required to give to this steam, if confined in a close vessel, any certain amount of explosive force.

With this knowledge, and the knowledge of which I have already spoken, any farmer's boy may easily understand the structure of the steam engine, and its mode of acting, and the power with which it acts. And so much knowledge every farmer ought to possess.

And the time which might be saved from that now devoted to arithmetic, spelling, reading and English grammar, without injury to either of those

studies, would be ample to give that knowledge in every grammar school or district school in the State. G. B. E.

For the New England Farmer.

THE LAW AND MANNERS OF THE ROAD.

All of us have ideas more or less correct, in regard to the law which regulates our use of the highways; and, at any rate, good sense and good nature are usually very safe guides. A few words on the subject, however, may not be amiss.

It is commonly said that every one has a right to half the road. This is practically true, and comes about in this wise: You and I meet upon the road—our legal rights are exactly equal, and both have a right to go our several ways without obstruction, so, popularly, we say I own half and you half. The law steps in to facilitate matters, and directs each to turn towards his right hand. The road should be "worked" wide enough for two teams abreast, then each man has a clear title to a passage on his right hand side of the way: and no one has a right to obstruct another while on his own proper track. This is true whatever the load or the team; for if one can drive such a team that another can pass him but with difficulty or not at all, then their rights are no longer equal. This point becomes very important in winter, for it is no joke to turn your horse and all into the deep snow while your neighbor goes smoothly along in the beaten path. No one has a right so to load his team as not to be able to give up half the track to whoever demands it.

A footman may choose the part which pleases him on any portion of his right hand half the way and the team must yield it to him. This is clearly so in winter, and no man is obliged to step into the snow for one or two horses. This is the law and the Court awards it.

Now for the manners of the road; which, in some instances, vary from the law thereof.

The first requirement of road manners is good nature and an accommodating spirit. Do to others as you would have them do to you. Always be willing to yield more than half the space, then you will be pretty sure to be equally well treated. They who exact inches will have inches exacted of them. If your neighbor has a heavy load, consult his convenience as far as possible; you may sometime be loaded. It has become a practical rule of courtesy to turn out for wood andlogs, and for other heavy teams in winter; for, they say, "we often cannot turn out, and never safely, so, if you want wood, accommodate us;" which we are very willing to do. But remembe it wasa favor, not your right, and you have a reciprocal duty to perfom, one which, I am sorry to observe, is not always borne in mind. When you have unloaded and are returning empty, just recollect that you had the whole road in the morning, and it is no more than fair that you should be particularly obliging to those whom you meet now, and give them their full share of the path.

One word in relation to teams going the same way; in which case many seem to think there is neither law nor manners. When a team comes up behind you, which desires to proceed faster than you do, that team has a right to reasonable space and opportunity to pass in—in fact to half the road for that purpose—and your obstructing him in his lawful desire is both bad manners and bad law. If your load is heavy, do the best you can. In most cases the very least that can be asked is that you should stop. This is particularly so in winter, when it is a heavy tax on any team to force it into a trot in deep snow—made necessary by your continuing at a walk. My remark above in relation to the emptied wood sled applies here, and, if one wishes to pass you, remember that while loaded you had the whole road.

One remark more, to and for the ladies. First, to them. If out walking keep in the path—never step into the snow or mud for any ordinary team. If you meet the team, step into your right-hand track or part of the road and all goes on easily. If the team comes up behind, step into your left-hand track; then, as sleighs are built, the horse goes in the other track, as before. Whereas, if you continue in your right-hand track the horse of the team must travel wholly in the deep snow in order to pass you, and the driver will be tempted to scold his wife as proxy for the female sex generally.

I have this to say for the ladies—always turn out for them. They are entitled to the right-hand half, and will you run over them because, in their confusion at meeting one of the "lords of creation," they happen to take their half out of the wrong side?

I close this somewhat lengthy dissertation with an appropriate aphorism: Wheel grease is a great lubricator, but good manners are a vastly greater one. VIA.

For the New England Farmer.

MERINO, AND OTHER SHEEP.

MESSRS. EDITORS:—In reading an article in my last *Farmer*, from the pen of C. S. Weld, on "Theory and Experiment," I felt that I could not refrain from exposing his injustice. I do not anticipate, however, that his attack upon Mr. Campbell, Mr. Greeley, or yourself, Mr. Editor, will prove very damaging to either of you. But it is none the less deserving of rebuke. And I was glad, on reading your remarks upon the article, to see that you had nobly defended Mr. Campbell from the unjust epithet of "Vermont speculator." If Mr. C. needs any other defenders of his reputation, they are at hand, and I trust will not fail to command the respect of even Mr. Weld.

Hon. Henry S. Randall, in his late excellent work on sheep—"The Practical Shepherd"—speaks thus in regard to Mr. Campbell at the International Exhibition at Hamburg:

"I cannot here withhold a pleasing fact which strikingly evidences the fairness and the modesty of the victorious exhibitor at Hamburg. Colonel Needham informs me that Mr. Campbell, on all occasions, signified to the breeders of Germany and France, and *requested* him (Col. Needham) to signify that he was not the founder or leading breeder of the improved family of American Merinos,—which his sheep chiefly represented—but that this honor belonged to Mr. Hammond."

Thus endorsed by Henry S. Randall, LL.D., Corresponding Secretary of the Vermont State Agricultural Society, and by the editors of the *N. E. Farmer*, Mr. Campbell will hardly need to reply to Mr. Weld's ungenerous attack.

But enough in defence of Mr. Campbell! The real blow was not so much aimed at Mr. Camp-

bell as at those three "dwarfish, insignificant, dirty, scrubby merino lambs." And I think it was also intended to prove an extinguisher to the whole race of merinos. But I am happy to say that *some* of them "still live;" and if Mr. Weld wants to see evidence that they *deserve* to live, he must accept this challenge: He is at liberty to select the best and most profitable flock of any of the English breeds within the limits of the United State, and show on undoubted authority the real net profit per head of keeping the same for a year; and if I am not able, on equally reliable testimony, to prove that merino flocks, equally large, have given their owners *twice* as great profit per head as said mutton sheep, I will write no more in their defence. I do not wish to be understood, in anything I have said, to approve the cross of the merino with the Leicester and South Down. I interpret the article as a fling at the merinos, and hence my challenge. And until finally beaten, I claim for the merino a position second to no other breed of sheep, and perfectly adapted to each and every county of Maine.

A. B. PALMER.

Orfordville, N. H., Feb. 22, 1864.

A NEW REMEDY FOR THE BORER.—In conversation with one of our subscribers the other day, he casually stated that his apple trees were not troubled by that pest, the borer. Upon inquiry we learned that he applied the earth and substance taken from where his sink-spout emptied, to the trunk, or rather around the collars of his apple trees each autumn, and then dug it away or removed it the next summer. He considered this an effectual remedy, as the borer did not trouble them, and further, it was a good dressing for the soil around the tree, after being dug away. Of course the soil where the spout emptied would have to be renewed yearly, by supplying a cartload of earth, sods, &c., to absorb and hold the refuse liquid. If not used in this manner, the slops from the sink should always be added to the compost heap, or applied to the garden crops during the growing season, as they are too valuable and rich in fertilizing material, to be wasted. *Maine Farmer.*

HOW TO GROW PEACHES EVERY YEAR.—The following, by a correspondent of the *Ohio Cultivator*, is worthy a trial by all lovers of delicious fruit: Procure your trees grafted upon the wild plum stock. The tree partakes of the nature of the plum, being hardy, and will never winter kill, and putting out late in the spring, will never be injured by the frost. It is a certain preventive against the workings of the peach grub, while the natural lifetime of the tree is beyond that of our own; so you may depend upon peaches every year, and for a long period of time, without the destructive and discouraging influences attending the growth of the common peach. They can be obtained at from fifty to seventy-five cents per tree, and you had better pay five times the amount than not to obtain them, being certain of peaches every year. Try it, and our word for it, you will be satisfied with the result.

CULTIVATE your own heart aright; remembering that whatsoever a man soweth, that shall he also

For the New England Farmer.

METEOROLOGICAL RECORD FOR JANUARY, 1864.

These observations are taken for and under the direction of the Smithsonian Institution.

The average temperature for January was 22°; average mid-day temperature, 28°. The corresponding figures for January, 1863, were 27° and 32°. Warmest day, the 25th, averaging 39°; coldest day, the 7th, averaging 4° below zero. Highest temperature 43°; lowest do. 8° below zero.

Average height of mercury in the barometer 29.22 inches; do. for January, 1863, 29.35 inches. Highest daily average 29.62 inches; lowest do. 28.72 inches. Range of mercury from 28.54 inches to 29.69 inches.

Rain or snow fell on seven days; amount of snow 14 inches; amount of rain and melted snow, 2.35 inches. Fifteen stormy days with 26.75 inches of snow and 3.66 inches of rain and melted snow, in January, 1863. There were two entirely clear days. On two days the sky was entirely overcast.

The winds have been very light, and but little snow, as will be seen; only about half as much as same month last year. A. C.

Claremont, N. H., Feb. 22, 1864.

GREEN CHEESE.—The one grand error in American cheese-making, is the want of care in not ripening the cheese before it is sent to market. We all know that there is considerable difference between a green pear and a mellow one; between a Baldwin apple in the fall and after it has been kept a few months to ripen. So there is much difference between curd and cheese. The curd is the green apple, the cheese the ripened fruit. If you were going to send hay to market you would not send the green grass fresh from the field, and yet you often sell your cheese when it is as green as grass.

In the Cheshire dairies of England, so celebrated for cheese—none is ever sold until it is six months old. The cheeses are kept in a moderately warm room until thoroughly ripened and cured, with that outside mold so indicative to a practiced eye of a rich, fine flavored, ripe cheese. —*Genesee Farmer.*

CURE FOR CONSUMPTION.—Dr. HALL, in the February number of his *Journal of Health*, says the "essential, the fundamental, the all controlling agency in the arrest of any case of consumptive disease, and a return to reasonable health for any considerable time, *is an active, courageous, and hopeful out-door life, in all weathers and in any latitude*, with some rousing motive, other than regaining the health, beckoning them on, to do and to dare."

PASTE may be made with flour in the usual way, but rather thicker, with a proportion of brown sugar, and a small quantity of corrosive sublimate. A drop or two of the essential oil of lavender, peppermint, anise, or bergamot, is a complete security against molding. Paste made in this manner, if kept in a close covered pot, may

THE CULTURE OF SPRING WHEAT.

A New Hampshire farmer said to us the other day that, for the first time for twenty years, he had just purchased a barrel of flour! That he had always cultivated spring wheat, sometimes to the amount of two hundred bushels in a season, that his family had been abundantly supplied with flour of their home production, and that it had been as sweet and nice as any that the market afforded. At the table of this gentleman we certainly have eaten bread as good as ever came from wheat.

We have often urged the importance to the farmer of raising, as far as possible, all that his family requires upon the farm itself. Not to reject a crop, entirely, because only a little of it is needed in the family, or because his soil is not perfectly adapted to its culture, but to select the most favorable soil he has, and produce what he requires of any particular thing, rather than depend upon one large main crop. In the latter case, he runs the risk of failure in the large crop, and if he secures it he must go through all the forms of marketing or exchange, for the other smaller article which it needs.

As an illustration:—Every farmer wants two bushels of beans, annually, to supply the family table. Now which of two things shall he do? Plant no beans, and extend his corn or hay crop, go though all the forms of selling the corn in market, and then purchase beans, such as he can get, and pay the profit, beyond their cost, which every seller must have, or raise them himself? There are not many farmers who would entertain the first proposition for a moment.

As a general rule, it is the interest of the farmer to produce all the perishable articles of the farm, which are needed by the family, within himself. His corn, wheat, rye, beans, oats, potatoes, hay, turnips, cabbages, salads, tomatoes, peas, cucumbers, apples, cranberries, eggs, &c., &c. With a little care in the selection and judicious management of soils, and proper attention to each crop, he may feel pretty sure of securing them all every season. But if he depends upon the sale of any one large crop to get the means of purchasing these lesser, but equally indispensable articles, and that one crop is cut off by drought, frost, insects, or any other calamity, he will certainly find himself in a poor way to furnish his table in a generous and inviting manner.

Spring wheat requires a tolerably rich soil. Not one mostly made up of vegetable matter and filled with rich manures,—as such a soil would excite the plant to a great growth of stem and leaf, with but little seed. But a sandy loam, deep, finely pulverized, and abounding in silex and other minerals. The crop usually follows Indian corn in the New England States without manure at the time of sowing, and such land, if the corn crop was well manured and tended, will usually carry out the wheat. In some cases, however, a pasture or clover sward is selected. The wheat plant loves such a new soil, where the mineral substances have not been exhausted. An old pasture, not too rocky to prevent plowing it three or four inches deep, turns up light, the sward is tender, its vegetable portions decay just about fast enough to feed the growing plants, and they usually produce a fair crop without much manure beyond a coat of lime or plaster. In such a loose soil the seeds "tiller" freely, frequently throwing out ten to thirty new stems, and growing vigorously through the season.

The grains of spring wheat are usually somewhat smaller than those of winter wheat, and the straw is less when cultivated under the same circumstances. The advantage which it possesses is that of ripening early. It succeeds best in this region when sowed just as early as the soil is sufficiently dry to be crumbly when it is plowed. If the season is favorable it will ripen in about ninety days. In sowing, the seed should be distributed and covered evenly, which will cause the ripening of the whole crop at the same time. In regard to this point, much will depend upon the manner in which the ground is prepared. It should be harrowed quite evenly after being plowed, and again after the seed is sowed.

Three or four pecks per acre are required for seeding, varying a little according to the nature of the soil—rich land requiring less than a poor soil. It is well to soak the seed in a strong brine twenty-four hours, stirring it rapidly occasionally, so as to bring oats and other lighter seeds to the surface, so that they may be skimmed off.

When a crop is well grown, much care should be exercised in harvesting it. A few days too early, or a few days too late, will make an essential difference in the *quantity* obtained and the *quality* of the bran, flour and gluten. The best indications of the proper time, are the pasty condition of the seed—that is, when it is neither milky nor hard, but at the moment when it has passed the milky state. If cut at this time, the seed draws the juices from the stem, or in some manner becomes plump, hard and perfect, and yields its richest products.

Another indication of the true time of cutting is given by the changed color of the straw immediately below the head. When this changes from green to yellow, which it does before the body of the straw changes, the circulation of the plant is arrested, and the head can receive no more nourishment from the roots. In this condition it probably can derive nothing from the air, and must, therefore, contain within itself all that is necessary for its perfection.

This is the important time to cut it, and this point, in all our grain crops, deserves more consideration than it has usually received. A proper observance of this particular would considerably increase the quantity of our grain crops, and greatly improve their quality.

One other thing we may observe before we close. The last process of Nature's work in maturing grain is supposed to be the perfecting of the seed-coat, or that part which makes the bran, when the grain is ground. This probably takes place, to a great extent, after the circulation of the plant is arrested by the drying of the straw at the neck. For purposes of food, the less bran the better, and this we secure by cutting as soon as we see the changes already spoken of. But if we want the wheat for seed, we are inclined to think it should stand until it is fully ripe.

We have seen an experiment stated where a crop was cut at three different periods, at intervals of ten days. One third was cut twenty days before it was ripe, another portion ten days afterwards, and the rest left until it was dead ripe. The result was:

	20 days.	*10 days.*	*Dead ripe.*
Flour	74.7	79.1	72.2
Bran	17.5	13.2	16.

We hope to resume this subject of cutting just previous to the next grain harvest.

LADIES' DEPARTMENT.

HOW TO KEEP CHILDREN HEALTHY.

The mortality among the children in our cities, as well as in the country, is sad to contemplate. Is there any necessity for this? Are all these children sent into the world to be thus early cut down? Are not nine out of ten of these early deaths the result of ignorance? What parents ever lost a child, except by accident, without thinking: "If I had treated it differently, it would not have died?" The loss of our own three first-born has led us to think much upon this topic, and three almost always healthy living ones are evidences that our studies on the subject have not been in vain. A few hints on the topic may not be without use.

Elsewhere, we have given some hints on the sleep of children. Next to securing plenty of sound sleep, or rather before it, we place the proper preparation of food. The kind of food they eat is not half so much consequence as the manner of its preparation. Give a child a hard apple and let him swallow it in pieces from the size of a large pea upward. The result will be, that the lumps will be partly worn off by the coats of the stomach, and partly dissolved by the gastric juice; but after a time, the remaining portion of the lumps will be forced down into the intestines and go through the whole length of fifteen to twenty feet, producing at least griping and irritation all the way, if not diarrhœa or dysentery. But first scrape or mash the apple to a fine pulp, and it may then be eaten with impunity, and with benefit, if ripe or nearly so.

Feed a child on boiled potatoes cut up, or on potatoes coarsely mashed and fried in fat, and you will be pretty sure to find more or less of lumps of potatoes remaining undigested. How can it be otherwise than that these lumps must have produced irritation in the intestines? But mash these same potatoes finely before feeding them, and then the fine material will be digested and afford nutriment instead of giving uneasiness and pain "under the apron."

The same holds true of most meats. Cut up fine—as fine as shot almost—they will be digested, and produce nourishment; while if fed in coarse pieces, they will lie in the stomach, like a meat poultice on the outside, the cause of uneasiness if not of partial inflamation. Feed raisins and nuts to children, and unless very strong and vigorous, the chances are that they will induce immediate sickness or a weakened system, liable to be affected by the first change of heat and cold.

Chop these same raisins or nuts finely, reducing them almost to powder, and they may be eaten in moderate quantity with impunity. These remarks apply to all kinds of food, and, in a measure, to grown people as well as to children.

Many persons are over nice or anxious as to *what* their children eat, and often reduce them to skeletons, or unfit them for a vigorous resistance of colds and malaria diseases, by feeding them on toast or rice, weak gruel, &c. Give them rather a fair supply of hearty food *finely reduced that it will be quickly digested in the stomach*, and they will grow vigorous and be able to withstand the changes of climate, and the exposures to which they are ever liable. Mothers, consider these things, and see if they are not true and in accordance with reason.—*American Agriculturist.*

PICTURES.—A room with pictures in it and a room without pictures, differ about as much as a room with windows and a room without windows. Nothing is more melancholy, particularly to a person who has to pass much time in his room, than bleak walls with nothing on them, for pictures are loopholes of escape to the soul, leading to other scenes and other spheres. It is such an inexpressible relief to a person engaged in writing, or even reading, on looking up, not to have his line of vision cropped off by an odious white wall, but find his soul escaping, as it were, through the frame of an exquisite picture, to other beautiful and perhaps heavenly scenes, where the fancy for a moment may revel, refreshed and delighted. Thus pictures are consolers of loneliness; they are a relief to the imprisoned thought; they are books, they are histories and sermons, which we can read without the trouble of turning the leaves.—*Downing.*

GERANIUM LEAVES.—It is not generally known that the leaves of geraniums are an excellent application for cuts, where the skin is rubbed off, and other wounds of that kind. One or two leaves must be bruised, and applied on linen to the part, and the wound will become cicatrised in a very short time.—*Miss Fry.*

LOOK UP the flower seeds for early planting.

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CATTLE MARKETS FOR MARCH.

The following is a summary of the reports for the five weeks ending March 16, 1864:

NUMBER AT MARKET.

	Cattle.	*Sheep.*	*Shotes.*	*Fat Hogs.*	*Veals.*
Feb. 17.....	1002	4722	25	—	—
" 24.....	1390	3209	25	—	50
Mar. 2.....	1902	4703	12	—	50
" 9.....	1047	5984	20	—	75
" 16.....	1785	5987	50	50	100
Total.....	7,135	24,605	102	50	275

The following table exhibits the number of cattle and sheep from each State for the last five weeks, and for the corresponding five weeks last year; also the total number since the first of January, of each year:

	THIS YEAR.		LAST YEAR.	
	Cattle.	*Sheep.*	*Cattle.*	*Sheep.*
Maine.....	608	—	636	88
New Hampshire.....	703	4004	555	2311
Vermont.....	1703	7183	1652	3229
Massachusetts.....	396	7235	699	5020
Rhode Island.....	14	—	—	—
Northern New York.....	171	135	122	247
Western States.....	2978	6043	4062	2304
Canada.....	62	—	11	—
Total, last five weeks.....	7,135	24,605	7,677	13,199
Total, since Jan. 1, (11 weeks,)	16,510	50,622	16,704	30,816

PRICES.

	Feb. 17.	*Feb.* 24.	*Mar.* 2.	*Mar.* 9	*Mar.* 16.
Beef, 1, 2, 3 qual...	7½@10	8 @10½	7½@10½	8 @10½	8 @10½
" ex. and prem.	10 @10½	10½@11	10½@11	11 @11½	11 @11½
Sheep & lambs, ₩ lb.	6½@8	6½@8	6½@8	6½@8	6½@8
" " extra.	8½@9½	8 @9½	8½@9½	8½@9½	8½@9
Shotes, retail.....	7 @9	7 @9	7 @9	7 @9	7 @9
Beef hides, ₩ lb....	9½@10	9½@10	9½@10	9½@10	9½@10
Pelts, sheep & lambs.	$3½@4	$3½@4	$3½@4	$3½@4	$3@4

REMARKS.—One of the most noticeable characteristics of the market during the past five weeks is the prices which beef cattle have commanded. The prediction uttered by some of the drovers last Fall, that before the Spring opened the Brighton butchers would pay 12c ₩ lb. for beef cattle, has been fully verified. Not only single pairs but small choice lots have been sold at those figures; and the quotations of the retail market are 8@9 cents ₩ lb. And yet at these prices all the cattle that are offered for sale find a ready market. For the corresponding five weeks last year, our quotations were from 5½ to 8½c, and for the year before from 5½@7c; and yet the amount of beef consumed is about the same as last year.

The prices for sheep have declined slowly during this period, and are now but little if any higher than one year ago. It will be noticed that there were only about three-fifths as many in number at market last year as this year, thus far. In consequence of grain being so dear, sheep as well as cattle are sent to market in poor condition.

Working oxen are from $100 to $200 ₩ pair, and farmers are afraid to buy.

Sales of Cattle and Sheep.

The following is from our report of sales, March 16:

Lemuel Stearns marketed one cow this week, fatted by J. M. Smith, of Sunderland, Mass., of Durham blood, which was as large and fat as a premium ox. The roots of the tail, instead of forming a ridge, lay in a depression, so thickly was the flesh laid on each side of the back bone. The proof of the pudding is said to be in the eating, and the proof of cattle, after all your puffing, is in the selling. By this test Mr. Smith's cow returns her compliments to her feeder in the form of fifteen ten dollar bills. If one hundred and fifty dollars don't prove her a good cow, then no dictionary words of ours can do it. Mr. Stearns said she would dress over 1200 lbs.

W. I. Sabine sold one pair of oxen to J. Dana, laid at 2300 lbs., for $230; and another pair for $150; 4 other oxen, at 9½c ₩ lb., 34 per cent. sk.

E. Robbins sold 4 large oxen to S. S. Learnard. One pair in particular, fed by B. W. Gleason, of Rockbottom, weighed at home, about three weeks since, 5400 lbs. the largest one weighing 2900 lbs. They were not at all overfatted, but in a good healthy state, and were in every respect a noble pair of bullocks. The other pair weighing 4480 lbs. at home, we understood were also fed by Mr. Gleason, were grand good oxen.

C. W. Bailey sold one of those pairs of oxen which bring the big prices which we report, and, the drovers say, lead farmers to think their oxen, of much inferior quality, ought to bring the same high figures. These oxen were fatted by Henry Nutt, of East Montpelier, were laid to dress 2500 lbs., and brought $300. Among a lot of 14 good oxen, sold at 10½c, ½ sk. Mr. Bailey pointed out a pair, the best of the lot, laid to dress 2100 lbs., which were fed by Mr. Alger, of Stowe, Vt., and which, if sold alone, we thought were good enough for a little more money. Mr. Bailey also sold at Brighton this afternoon one pair of oxen to H. Zoller, laid at 1500 lbs., for $135; and was dwelling on five or six young cattle, the last of his 52, at 9c, 38 sk.

The best River cattle at Brighton, and Mr. Smith and Mr. Day had some rich ones, 11½c.

Geo. W. Morrison sold 4 oxen, laid at 3600 lbs., for $350, one pair, laid at 1850 lbs., for $187; one pair laid at 1800 lbs., for $188; one pair, 1700 lbs., for $170; 2 steers, 900 lbs., for $72; and one cow for 10c to kill and weigh.

A. N. Monroe sold 29 Western cattle, 1350 lbs., each, live weight, at 10½c, 34 sk; 29 others 1440 lbs., each, at 11c, 30 sk; 59, average live weight 1123 lbs., at 10½c, 39 sk; 31 averaging 1200 lbs. at 9½c, ½ sk; 14 weighing 1448 lbs., each, at 11c, 30 sk; 5 of 1050 lbs., each, at 9c, 35 sk; 6 average live weight 1300 lbs., at 10½c, 30 sk; and 2 weighing 1170 lbs. at 10½c, 35 shrink.

J. E. Wight sold a good bunch of 75 sheep, 100 lbs. each, at 8½c; E. Wiggin sold 59 sheep, weighing 3950 lbs. together, at 7¾c ₩ lb; W. H. Bardwell sold 90 light sheep, at 6¾c, 23 selected cossets—the pick of an extra lot—averaging 150 lbs, at 9½c ₩ lb, and 48 weighing 5600 lbs, almost 117 lbs. each, for 8¾c ₩ lb,—expected 9c, sure; D. R. Wait sold a flock of 95 well fed sheep, 105 lbs. each, at 8½c, and 35 at 7½c; J. Lyman sold 100 at 7c ₩ lb; F. Bartlett sold 94 sheep, 6490 lbs. at 6½c ₩ lb; G. W. Barker sold 58 sheep at 8c; Fargo, Lord & Co., sold 300 Michigan fine wooled sheep to Bates, Hollis & Giles, weighing 113 lbs. at home, about 93 lbs. from the cars at Cambridge, for 9½ ₩ lb.

STORE CATTLE.—We cannot perceive any great change in the sale of working oxen and milch cows,—which are the only kinds of cattle at market now-a-days which are regarded as stores. We noticed yesterday a few slim looking cows from Albany, but did not learn where they went to. Most of the Maine cattle are sold as beef—some among the premiums. Of which Henry Day sold some 3 or 4 pairs of 12 cwt. bullocks, at 11½c ₩ lb, and one pair of workers, 6 ft., 8 year-olds, nice and trim, for $132.

D. G. Stevens one large, rough looking yoke, 6 ft. 7 or 8 in., for $150, and a pair of 3-year-olds, 6 ft. 2 in., for $125.